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ORIGINAL LECTURES.

A CLINICAL LECTURE ON PNEUMONIA.

Delivered to the Clinical Class in the Mercy Hospital of Chicago, May, 1882.

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(Reported for THE MEDICAL NEWS.)

GENTLEMEN: I intend to occupy your attention during the present clinic hour with the subject of pneumonia.

The patient before you is a laboring man, about thirty years of age, who has usually enjoyed good health. Nine days since he was much exposed to wet and cold, and was attacked with a well-marked chill, followed by pain in the left side of the chest, fever, and some cough. His symptoms continuing to increase, he was transferred to the hospital on the evening of the second day. At that time his temperature was 39.5° C. (103° F.); face flushed; skin dry; pulse 100 per minute, and moderately full; cough frequent, but not severe, and accompanied by a scanty expectoration of glairy mucus, slightly tinged with blood. There was slight dulness on percussion over the lower lateral and posterior part of the left side of the chest, and a distinct crepitant râle below the axilla of the same side. These physical signs, coupled with the general symptoms, indicated the existence of pneumonic inflammation occupying the lower and a portion of the middle sections of the left lung, just at the stage of progress when the primary engorgement of the capillary vessels had begun to cause active exudation of the corpuscles and plasma of the blood into the alveoli or air-cells and interstitial spaces of the lung structure. The following day the temperature increased to 40° C. (104° F.), and the pulse to 110 per minute. The face was more flushed; breathing shorter and somewhat stifled on account of a sharp or lancinating pain in the lower part of the left side, which had supervened during the latter part of the night. The expectoration was still scanty, but more stained with blood. The tongue was coated, bowels quiet, urine scanty and high colored, and the skin dry; percussion and auscultation showed an increase of dulness over the left side, from the line of the axilla to the diaphragm; slight crepitant râle along the upper part of the affected portion of the lung, with moderate mucous râles over all the lower part of the left side of the chest, and a slight pleuritic friction just above the attachment of the diaphragm. It was now evident that the pneumonic inflammation had fairly entered upon its second stage, or that of exudation and red hepatization, while a limited portion of the pleura had also become involved. Soon after his admission the evening previous, the house-physician had the left side of the chest covered with a linseed-meal poultice, and directed him a teaspoonful of the following mixture every four hours:

℞. Ammon. muri.	12.00 grammes,	.	℥iij.
Ant. et pot. tart.	0.13 "	.	grs. ij.
Morph. sulph.	0.20 "	.	grs. iij.
Syrup. glycyrrhizæ,	130.00 c. c.,	.	℥iv.—M.

At my visit the next day, finding the patient as just described, I advised a continuance of the emollient application over the chest, and of the formula just given; but directed to be given in addition a powder of sulphate of quinia 0.33 gramme (gr. v), and calomel 0.06 (gr. j), every four hours, making the powder and the cough mixture alternate two hours apart. The next day, which was the fourth after the initial chill, the temperature was only 39° C. (102.1° F.); the face less flushed; the skin moist; the expectoration more free and opaque, but still tinged with blood; the pulse more soft, but about the same frequency; little or no continuous pain in the chest, but still a sharp stitch in the lower part of the left side, on attempting to take a full breath or a free cough. Percussion showed no change in the degree or area of dulness, but auscultation detected neither fine crepitant râle nor friction, but a moderate mucous râle over the affected side.

I directed the same treatment to be continued, except the omission of the calomel from the powders, and the addition of a blister plaster, four by four inches, over the seat of sharp pain in the left side. The next, or fifth day of sickness, the records showed his temperature to have been 37.7° C. (100° F.) in the morning, and 38.5° C. (101.5° F.) in the afternoon; pulse 100 and soft; respirations 18 per minute; and chest free from pain, except on taking a very full inspiration; expectoration easy and quite free from blood; skin continued moist; urine more abundant; and one free evacuation of the bowels. Auscultation detected less mucous râles and a greater degree of expansion of the lung during inspiration, and yet there remained decided dulness on percussion over a limited portion of the lower and posterior part of the left side of the chest. The quinia powders were now reduced to 0.20 gramme (gr. iij) instead of 0.33 gramme (gr. v), and continued every six hours, with the cough mixture between, and milk and beef-tea more liberally for nourishment.

The patient continuing steadily to improve during the sixth and seventh days, the use of the anodyne expectorant was limited to one dose before breakfast and at bed-time, and the quinia to one powder after each meal-time. During the last two days, the eighth and ninth, he has been up each day; taken nourishment freely; had regular evacuations, but neither cough nor soreness in any part of his chest. In fact, he is so far advanced in his convalescence that he is now dressed ready to leave the hospital. I have called your attention to the details of this case, gentlemen, as a familiar example of one of the most important inflammatory affections you will meet in the ordinary field of general practice. Pneumonia, or inflammation of the parenchyma of the lung, is of frequent occurrence during the cold season of the year throughout the greater part of the temperate zone of the earth's surface. It usually prevails most during the latter part of winter and early part of spring. This is particularly true in those localities where periodical or malarious fevers prevail during the latter part of summer and autumn. It attacks persons at all periods of life, but is much more likely to prove fatal in early childhood and old age than in youth or early adult life. I have noticed that a very large proportion of the members of our own profession who die after fifty years of age do so from pneumonia.

The statistics presented by Dr. Samuel Forrey, in his valuable work on the climate of the United States, and its influence on the prevalence of diseases, appeared to show that pneumonia was most prevalent, and caused the highest ratio of mortality in what he called the middle climatic belt, which is that lying between the

thirty-fourth and thirty-ninth parallels of latitude. It is in that belt of country that we have long-continued and high summer heat, and though the winters are comparatively short, there are some days of intense cold, giving the thermometric combination of long and warm summers, short and cold winters, and wide range between the highest heat of summer and the coldest days of winter. Other circumstances being the same, it was where these characteristics were most marked that he found attacks of pneumonia and pleurisy to be numerically most frequent and most fatal. But in the northern belt, including all our country north of the thirty-ninth parallel, where the winters are more protracted, the summers shorter, with long and very changeable transition seasons, he found the highest ratio of prevalence of bronchitis, catarrhal affections, and rheumatism. The laws thus deduced by Dr. Forrey, chiefly from the statistics of the several military posts in the United States more than forty years since, have only been confirmed by the subsequent observations of others.

Etiology.—It is probable, however, that the general climatic features to which I have alluded, exert only a predisposing influence upon the whole population, while other causes acting more directly upon individuals are required to determine an attack. The most important of these direct exciting causes are doubtless exposures to cold and damp atmospheric changes, excessive physical exertion, intemperate habits, and lying on the damp ground, especially at night. A much larger number of cases occur in males than in females, and in those following out-door occupations than in those working in-doors.

Pathology.—Thus far, gentlemen, I have spoken of pneumonia as a simple local inflammation affecting the parenchyma of the lung; but there are many, at the present day, who claim that it is a general zymotic disease, and consequently to be classed with the idiopathic fevers. The principal reasons assigned for this view are that acute lobar pneumonia, pneumonitis, or croupous pneumonia, as it is variously designated by different writers, is accompanied by a fever which runs a definite course, is self-limited in duration, and does not always correspond in its severity with the extent or intensity of the inflammation in the lung. These reasons do not appear to me sufficient to sustain the conclusion drawn from them. It is true that pneumonia, like all other acute inflammations in vascular structures, runs a definite course, marked by a stage of intense engorgement or hyperæmia of the inflamed structure, a stage of exudation and more or less solidification, and a stage of resolution or suppuration; and the general fever rises with the first, reaches its acme in the early part of the second, and disappears with the beginning of resolution, or changes to a lower grade if suppuration supervenes instead of resolution. But the same is true concerning the fever that accompanies an acute pleurisy, or meningitis, or cerebritis, or hepatitis. Again, acute inflammation in any vascular structure is not a process that can remain stationary. Its first stage of vascular engorgement, if not speedily relieved, *must* be followed by exudation and more or less condensation, during which the greatest amount of heat will be evolved; and if the exudative material is not speedily removed by reabsorption, at the very beginning of which the fever heat would quickly disappear, it must degenerate into purulent, caseous, or fibrinous material, and either destroy life or undergo a slow process of repair. Consequently all acute inflammations in important organs are necessarily self-limited in their duration; and I have not been able to discover anything in the clinical history of pneumonia which, in this respect, differs from the history of other important local inflammations. On the other hand, it differs from the general or idiopathic fevers, in having no appreciable prodromic or forming stage prior to the appearance of the local phenomena; in being generally unilateral or attacking only one lung, or even a small part of one lung at a time, and in the fact that one attack does not in any *degree* lessen the liability to subsequent attacks.

It also prevails most at the same seasons of the year, and under the influence of the same exciting causes, as the inflammations of other parts of the respiratory apparatus, and not unfrequently in conjunction with them, as in pleuro-pneumonia, broncho-pneumonia, etc. I shall, therefore, continue to speak of the disease as one of the phlegmasiæ or important local inflammations. Clinical experience has shown that the inflammation commences in much the larger number of cases in the lower and middle lobes of one lung, and is often limited to these throughout its course. Sometimes it attacks corresponding lobes of both lungs at the same time, constituting double pneumonia, and cases are not wanting in which it commenced at the apex of one lung. If it supervenes as a complication with bronchitis, it is quite apt to develop in individual lobules of the lungs, constituting the variety called lobular pneumonia.

This occurs most frequently in young children. In whatever part of the lung structure the inflammation may commence, the essential pathological changes are the same as occur in all other acute inflammations. First, increased susceptibility or irritability of texture and intense engorgement of the blood in the vessels of the part. This constitutes the first stage, and usually lasts from one to two days, during which time many of the white corpuscles are attracted to the walls of the distended vessels, and the red adhere to each other in rows or chains, thereby adding to the obstruction of the circulation through the part. A continuance of this distention and obstruction of vessels and capillaries soon causes many of the corpuscles, with more or less of the plasma, to permeate the walls of the vessels into the interstitial spaces, the alveoli or air-cells, and bronchioles, thus excluding the air and rendering the whole structure more dense, constituting the condition called red hepatization, which is the second stage in the inflammatory process.

I shall not stop to discuss the question whether the process of exudation by which the inflamed structure becomes filled with the corpuscles and plasmic elements of the blood is one of cell proliferation, as claimed by Virchow and his followers, or one of exosmose aided by the affinity of the over-excited tissue for the blood elements, inasmuch as the practical results are the same; for neither the cell proliferation nor the exosmose would take place without the preceding irritability of tissue, and vascular fulness, and you may regard it as a rule, that in proportion to the intensity of the two last, will be the extent and persistence of the first. Thus far the pathological changes taking place in the inflamed lung are uniform in kind in all cases, differing only in the degree or amount of change. But the subsequent steps may lead to either of the following results, according to the coincidence of certain circumstances or variable elements that are liable to be present in each case: First, if the general properties of the tissues are natural, and the blood plastic and free from toxemic elements at the time of the attack, and the amount of exudation into the tissues is moderate, the diminished oxygenation and decarbonization of the blood will render it sufficiently sedative to check both the general fever and the local excitability, and the exudative material will undergo rapid disintegration and removal by absorption, constituting what is called resolution, and an early recovery. This is the result obtained in a large majority of the cases of ordinary uncomplicated pneumonia. Second, if the amount of exudative material filling the inflamed struc-

ture be so great as to over-distend the interstitial spaces and carry some of the corpuscular elements or leucocytes beyond contact with the living fibres, such elements will rapidly degenerate into pus corpuscles, and more or less suppuration instead of resolution will be the result, thereby protracting the patient's sickness, and often ending in a fatal degree of exhaustion. Third, if at the time of the attack, the patient has that deviation of the properties of his tissues and qualtity of his blood, from the normal standard which constitutes the scrofulous and tuberculous diathesis, then the exudative material that accumulates in the second stage will be very liable to undergo the caseous instead of direct purulent degeneration, causing the tissue to remain dense after the febrile stage has passed, and rendering the convalescence slow and incomplete.

In most of these cases, in a few weeks or months, the caseous material undergoes further degeneration into purulent matter, accompanied by all the phenomena of actively progressing pulmonary phthisis. Fourth, cases are met with, though rarely, in which the plasticity of the exudative material and the vital affinity of the tissue are such that more or less of the former becomes permanently organized and attached to the walls of the alveoli in the same manner as the plastic material thrown out upon the inflamed serous membranes, is organized into false membrane and made the bond of permanent adhesions. In these cases, the entire stages of the pneumonia pass rather slower than usual, and convalescence ensues. But on getting up, the patient is found to have undue shortness of breath and weariness on taking exercise, and a physical examination reveals diminished expansion of the affected side of the chest, diminished resonance on percussion, increased fremitus or vibration of voice, thus indicating density of the lung structure and diminished capacity "for air," without any other local or constitutional signs of phthisis. In this condition I have known a few patients remain for many years able to attend to a moderate amount of business with but little difficulty. And yet there is a tendency, in the greater number of such cases, to have further degenerative changes supervene sooner or later, in the primarily affected part of the lung, and causing them to be classed by some as chronic pneumonia and by others as fibroid phthisis. From this brief statement of the important pathological changes occurring in pneumonia, you will see that those of the first and second stages are the same in kind in all cases, varying only in degree; while those of the third stage vary much, both in the direction of the changes and in the results.

(To be continued.)

ORIGINAL ARTICLES.

PURPURIC SMALL-POX:

A CASE, WITH AUTOPSY AND SEQUEL.

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ON the twelfth of March last, the steamship *Hermann*, with 727 emigrants on board, arrived at Baltimore, 18 days from Bremen. She had a clean bill of health to show; and though one death had occurred on the voyage, which raised a suspicion of small-pox, prompt prophylactic measures had been at once adopted, and no further indications of the disease had been observed. The quarantine physician carefully examined all the passengers, and those who showed no evidence of previous successful vaccination, were properly vaccinated. Most of the passengers were at once transported, *via* Baltimore and Ohio Railroad, to their destinations in the Western States,[1] while a comparatively small number remained in and about the city of Baltimore.

On March 15, H. Frederickson, a rather robust German, about forty years of age, who had been acting as a stoker on the *Hermann*, was admitted into the City Hospisal, suffering from what was recognized as a frank case of erysipelas. The erysipelatous inflammation was diffused over the head and greater portion of the upper extremities, having as starting-points three carbuncular swellings, situated on the upper lip, the right wrist, and left hand, respectively. These carbuncles, or boils, were opened, and discharged a considerable quantity of pus and necrosed connective tissue. He was immediately placed on the usual treatment for erysipelas —tincture of iron, in full doses—and the suppurating local lesions received proper attention. An improvement was rapidly manifest, and in the course of three days the erysipelas had nearly disappeared. On the following day, there was a renewed accession of the fever, with considerable headache, and some nausea and vomiting. The latter symptom was ascribed to the tincture of iron which the patient had been taking, and this was accordingly discontinued. During the afternoon of this day, a red rash—not elevated above the skin—appeared on the face, and by next morning had spread pretty well over the body. The eruption resembled scarlet fever, and was accompanied by some redness and swelling of the throat. During this day—the second of the eruption—small petechial spots were observed on various parts of the body, especially the abdomen and extensor surfaces of the arms. The headache and vomiting continued. No pain in the back was complained of.

On the third day, the petechial eruption became general, the spots in some places coalescing to form large, brown patches, not disappearing under pressure. Free perspiration had also been noticed. A small number of disseminated, small, conical papules were observed on the inner anterior aspect of the thighs, and believed to be lichen pilaris.

I saw him for the first time about one o'clock of this day, 21st, but had only a few minutes in which to make a very incomplete examination, being called away to assist in an operation, and promising to return and see him again in the evening. The history, as above detailed, I have obtained since that time. Within an hour after I saw him, he was taken with violent pain in the lumbar region, and died about 3 P. M. His mental faculties were unimpaired to the last.

The *autopsy* was made eight hours after death by Dr. Branham and myself, assisted by Drs. Van Note and Thomas, resident physicians at the hospital. The body was moderately well nourished. Rigor mortis was present in only a very slight degree.

[1] The *National Board of Health Bulletin* for April 8, contains a telegram from Dr. J. H. Rauch, Secretary of the State Board of Health of Illinois, conveying the information that a case of small-pox, by direct importation on the steamship *Hermann*, has developed at Ottawa, in that State.

The surface of the body was completely covered with petechial spots, which were aggregated in large numbers, especially on the chest, neck, the extensor surfaces of the arms and on the scrotum. In these localities they coalesced and formed large, brown patches, not disappearing under pressure. On the thighs were some papules of lichen pilaris.

The chest was opened in the usual manner. The subcutaneous connective tissue and fat were found infiltrated throughout with blood. The pleuræ and mediastinal tissue were also permeated in the same manner. All these tissues were softened and looked as if they had been soaked in bloody serum. At points, here and there, the color was darker, marking small hemorrhagic infarctions. About two ounces of bloody serum were found in the pericardium.

The pleuræ were soft, easily torn, and of a brownish color from the infiltrated blood. Pretty firm, recent pleuritic adhesions were found on the right side. The lungs were œdematous, and the right lung was adherent at the apex. The heart was empty, soft and flabby, and dark-red in color.

On opening the abdominal cavity, the omentum was found generally infiltrated with blood, giving it a rusty color. The liver of about the usual size, possibly a little enlarged, and somewhat softer than natural. The spleen was enlarged to about four times its normal size, very dark in color and very friable. The kidneys were enlarged to about twice the natural size, with ecchymotic spots in the tissue of the capsule and effusions of blood underneath the capsule. The surface of the right kidney presented disseminated ecchymotic spots similar to those on the surface of the body, and a large clot was found in the lower part of the capsule.

The mucous coat of the stomach was covered with disseminated ecchymoses. A large subserous clot of the duodenum extending about one and a half inches from the pyloric extremity of the stomach was also found.

The bladder contained a small quantity of bloody urine, but appeared otherwise healthy.

The right temporal muscle was permeated by blood, which also appeared in closely-disseminated spots throughout the other muscles of the scalp.

The dura mater was slightly thickened and the pia mater somewhat congested. The brain appeared normal, with the exception of some hypostatic congestion in the occipital region.

The spinal cord was not examined.

While making the autopsy, some points in the history of the case suggested to me Trousseau's description of one form of hemorrhagic small-pox, and led me to make a remark to that effect to Dr. Branham. But upon examining the arm and finding a good vaccination scar we dismissed the thought, and contented ourselves with simply noting the appearances found post mortem, believing that the purpuric condition could be accounted for by the blood-poisoning (erysipelas) through which the patient had just passed. A few days after the death of this patient, I learned for the first time that several cases of small-pox had been taken to the quarantine hospital from among the passengers on the same vessel in which Frederickson had arrived.[1]

On reviewing the clinical history and the post-mortem record, and comparing them with those characteristic of small-pox as given by good authorities, I could not at that time reconcile the discrepancies which seemed to me to negative that diagnosis.

Nothing further occurred to cause suspicion until April 2, when Dr. Van Note, who had been only occasionally present in the room when the autopsy was made, complained of indisposition, and in the course of the following day developed a pretty high fever with some mental disturbance. The notes of his case, for which I am indebted to Dr. J. W. Chambers, his medical attendant, are as follows:

April 2. 2.10 P. M.—Slight chill, followed by fever. At 9 P. M., temperature 104°, headache, and a diffuse redness over the entire body, less marked on the face than elsewhere. Ordered twenty grains of quinia every four hours.

3d. 10 A. M.—Temperature 104.5°, notwithstanding the heavy doses of quinia. Redness still marked, no headache, some pain in the back and knees. At 5 P. M., temperature 104.8°, pulse 120; slight mental disturbance when awaking from sleep. Continued quinia and ordered sponging every half hour. At 10 P. M., temperature 105.5°, pulse 130; delirious and very restless. Was wrapped in a wet sheet, and sprinkled with cold water every fifteen minutes for two hours. At the end of that time his temperature was 103.5°, and he expressed himself as being much more comfortable.

4th. 9.30 A. M.—Temperature 101.5°, pulse 100. The redness was less intense and a few papules were scattered here and there over the body. These symptoms seemed to justify the diagnosis of small-pox, and on the same day Dr. Van Note was removed to the quarantine hospital, his wife volunteering to accompany him as nurse. At this writing (April 20), he is entirely well and has returned to the city.

On April 3, a German sailor, who had for six weeks been an inmate of the City Hospital, undergoing treatment for a fractured thigh, and who occupied the bed next to Frederickson, was attacked with slight fever, headache, but no pain in the back, which latter symptom was present in but a slight degree on the next day, when I examined him carefully. He had no nausea or vomiting, and no free perspiration. On the third day (second of the fever), a bright-red rash appeared upon the face, extending to the neck and chest, but not invading the abdomen. The feet were also somewhat reddened, and by the following day an abundant crop of papules had appeared on the forehead, face, hands, and feet. The temperature had fallen to near the normal, but the pulse remained frequent and somewhat feeble in force. On April 5, this patient was also removed to the quarantine hospital.

On April 4 a third case developed, the symptoms being slight fever and vomiting, but no pain, either

[1] These cases were three in number. Two of them were of the petechial form and died soon after their admission into the hospital; but in these cases the characteristic pustular eruption of small-pox had appeared, rendering their diagnosis a matter of no difficulty.

in the back or head. By the following day a suspicious eruption had appeared, and he was also sent to the small-pox hospital at the quarantine station.

A boy, about twelve years of age, who had occupied a bed between the two foregoing cases, had slight fever and headache on the night of April 4, but appeared bright and well on the following morning, when he was discharged from the hospital and sent home. A day or two after, he was also sent to join the others at the quarántine station, having in the meantime developed an attack of varioloid, which proved, however, to be exceedingly mild.

The diagnosis of variola, either true or modified, was verified in all these cases by the subsequent history as recorded at the small-pox hospital.

Immediately upon the discovery of the nature of the disease from which Dr. Van Note suffered, all the patients in the City Hospital were vaccinated, the floors and woodwork thoroughly scrubbed, the walls whitewashed, the bedding changed and disinfected, and the beds and bedding occupied by the infected individuals destroyed. This was the end of what threatened to be the origin of a serious epidemic of the disease in a thickly populated and rather unsanitary part of the city. This gratifying result is doubtless due to the prompt vaccination and the thorough disinfection (cleaning) of the hospital as soon as the character of the disease was discovered.

In the text-books and treatises on the practice of medicine, this anomalous form of small-pox is so lightly passed over, that I have felt the importance of calling the attention of others to its occasional occurrence, in order that a more prompt diagnosis and the institution of efficient prophylactic measures may avert the consequences which resulted in the case here reported. Purpuric small-pox is comparatively a very rare form of the disease, though, like malignant scarlet fever and diphtheria, it occurs more frequently in some epidemics than in others. No one can question the very large experience of Trousseau, and yet it appears from his language that he rarely had opportunities for observing such cases. Kaposi,[1] who gives on the whole the best and fullest description of the disease I have met with, states that from 1866 to 1871, when small-pox might be said to be constantly epidemic in Vienna, he observed only one case of purpuric small-pox among 4,088 small-pox cases in hospital, and two cases in private practice. In 1874, however, he saw ten purpuric cases in 209 cases of small-pox.

Kaposi makes the remarkable statement that vaccination does not seem to be protective against this form of variola. In fact, purpuric small-pox occurs so often, proportionately, among vaccinated and revaccinated individuals, or such as have previously passed through an attack of small-pox, as to excite surprise. Again, it is not the old, decrepid, cachectic individuals of the lower classes, but more particularly well-nourished young persons, who live among the most favorable conditions, that seem to be especially liable to this violent form of the disease, which is almost without exception, fatal.

[1] Path. u. Therap. der Hautkrankheiten, Wien. 1879, pp. 235–239.

A form of small-pox in which hemorrhage takes place into the pustules, after the latter have become developed, is not so very infrequent. I recall a case that I saw in 1877, in this city, in which an attack of small-pox occurred for the third time—the last two attacks being in consecutive years—where the bullæ, of enormous size, were filled with blood. This attack proved fatal on about the fifth day of the eruption.

The scarlatiniform, or morbiliform, rash which generally precedes the outbreak of the petechiæ, is very deceptive, and may—and doubtless often does—lead to a diagnosis of scarlatina, rötheln, or measles. There is, at first, no means of differentiation, except possibly by the general symptoms, which are not reliable. One would not be led to suspect small-pox in a case like the one here reported unless in a time of general epidemic.

Curschmann[1] says of the petechial or purpuric variola: "Very soon (even in from eighteen to thirty-six hours) a diffuse, scarlatiniform—very rarely macular—redness invades the trunk and extremities, but leaving the face almost always exempt." There is in most cases great depression, nausea and vomiting, frequently bloody stools and urine, and stupor or marked mental derangement. The tongue is swollen and red, and the breath has a fetid odor.

In the case here reported, the redness first appeared on the face, and then spread to the trunk and extremities. Although nausea and vomiting were present, there were no bloody stools, the urine was not notably abnormal, there was no mental derangement, no glossitis, and no fetor oris. Even after death no fetid smell attached to the cadaver.

The post-mortem appearances in my case were also different from those given by the best authority as characterizing this variety of small-pox. According to Ponfick (as quoted by Curschmann[2]), the liver, kidneys, and spleen are not enlarged in subjects dead with purpuric variola. The spleen is said to be small, hard, dirty dark-red, sometimes with large white or yellowish follicles. Ponfick also states that the heart is contracted, firm, and brownish-red. The notes of the autopsy of my case show the liver to have been very slightly above the normal size, and not apparently much altered; the spleen was very large, dark-brown—almost black—and very friable; the kidneys were more than double the normal size, and with bloody infarctions in the substance of one of them. The heart was empty and uncontracted.

Hence it appears that, according to the clinical history and the post-mortem appearances in this case, the diagnosis of purpuric small-pox was by no means certain—in fact, hardly probable. And had it not been for the consequent cases, which could not be traced to any other source of infection, and the cases removed to the small-pox hospital, which had developed contemporaneously with the first case (Frederickson), it would have been impossible to definitely state the cause of death in this instance.

[1] Ziemssen, Cyclopædia, vol. ii., p. 354.
[2] Ibid, p. 387.

The discrepancies between the post-mortem appearances in this case, and those noted by such an accurate observer as Ponfick, are perhaps explained by the profound blood-change which the patient had undergone in the attack of erysipelas which preceded the variolous outbreak.

I would also call attention to the anomalous course followed by the other cases. The scarlatiniform rash, which was noted in most of the cases, seems to have been more frequently present than in previous epidemics here (that of 1872, for example). In Dr. Van Note's case this was so strongly marked as to lead to a primary diagnosis of scarlet fever. These cases show that the clinical history of small-pox is not in all cases so definite as to render the diagnosis easy. At the present day, when epidemics of small-pox are among the less frequent occurrences, and where they rarely reach any very wide-spread prevalence, it becomes especially important to pay close attention to such forms of the disease as are liable to be mistaken for other diseases, which are generally less serious in their consequences.

Another point of importance in connection with the case here reported, is the coexistence of two specific diseases in the same individual. Assuming the usual period of incubation of small-pox, the patient, Frederickson, must have been exposed to the infection about March 4. After that time he was attacked by erysipelas, and when the latter had disappeared, small-pox at once developed.

BALTIMORE, April 20, 1882.

IS TUBERCULOSIS A PARASITIC DISEASE?

BY GEORGE M. STERNBERG, M.D.,
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IF the recently announced discovery by Koch of a bacillus of tuberculosis is fully confirmed by other competent observers, it will be admitted by all that we are indebted to the experimental method for a discovery of the highest importance to mankind, and that the labors of this ingenious and indefatigable country doctor have done more to establish medicine on a scientific foundation than have all the speculations of medical philosophers from the time of Hippocrates. The generalization, already made by many physicians in advance of satisfactory experimental evidence, that the infectious diseases are parasitic diseases due to the multiplication in the body of an infected individual—man or lower animal—of minute living organisms will no longer seem rash, even to the most conservative, if the truth of this discovery is confirmed.

The converse of this generalization, viz., that all parasitic diseases are infectious, is undoubtedly true, and if the time comes, as now seems probable, when we can say, with confidence, infectious diseases are parasitic, medicine will truly have established itself upon a scientific basis, and we may look for future triumphs in therapeutics corresponding with those already gained by preventive medicine, which is practically based upon a belief in the truth of this proposition.

That tuberculosis is an infectious disease is a truth that has been gradually dawning upon the medical mind, and which seems to be pretty well established independently of Koch's researches by the experiments of Villemin,[1] Tappeiner,[2] Cohnheim,[3] Toussaint,[4] and others, and by evidence of the kind which has been presented by Reich,[5] who traces tubercular meningitis in ten children, born of healthy parents during the years 1875 and 1876, to infection by a consumptive midwife, who was in the habit of kissing and fondling, to an unusual degree, the infants committed to her care.

No doubt numerous observers in various parts of the world are already engaged in a search for the bacillus of tuberculosis by the method which Koch has described, and we may look for very contradictory reports as to the results of such search. It must be remembered, however, that a negative result has but little value unless the method has been closely followed by one who has some experience in this line of investigation, and in the use of high powers. The fact that a discovery has been made—we shall assume that Koch's announcement is well founded until the contrary has been proved—by special methods of staining and cultivation in a field which so many others have explored in vain, shows how little importance can be attached to negative results as disproving the truth of the germ theory in any particular case, and how much depends upon experience and the perfection of methods in the prosecution of researches of this kind. Koch began this investigation as an *expert*, familiar from long practice with the technique of culture experiments and microscopical investigations with the highest powers. Probably no man living was better fitted by natural aptitude and past experience for carrying out an experimental research of this kind, and certainly very few would have been able to command as great confidence in the result announced in advance of confirmation by other observers. Still this confirmation is necessary in order to establish the discovery of Koch among the demonstrated truths of medical science. This is all the more essential, inasmuch as other observers, Klebs, Toussaint, have found in their experimental researches, organisms, *micrococci*, believed by them to be the agents of tuberculous infections, which differ morphologically from those—*bacilli*—described by Koch; and more especially because it has been demonstrated by repeated experiments that a disease closely resembling tuberculosis, if not identical with it, may be produced in animals by inoculation with a variety of organic products of non-tubercular origin, and even by the inhalation of inorganic particles. Thus, Brunet[6] inoculated seven rabbits with cancer, six with simple pus, and six with tuberculous matter. Of these, fourteen became

[1] Etudes sur la tuberculose, preuves rationelles expérimentales de sa specificité et de son inoculabilité. Paris, 1868.

[2] Eine neue Methode die Tuberculose zu erzeugen, Virchow, Archiv, 1878. Bd. 74, 393.

[3] Die Tuberculose vom Standpunkte der Infektionslehre. Leipzig, 1880.

[4] Sur la contagion de la tuberculose. C. R. Ac. des Sciences. t. xciii. p. 741.

[5] Die Tuberculose, eine Infektionskrankheit, Berlin. klin. Wochenschrift, 1878, p. 551.

[6] Sur la tuberculose expérimental, C. R. A. des Sciences, t. xciii. p. 447.

tuberculous, viz., six of those inoculated with cancer, three of those inoculated with pus, and five of those inoculated with tuberculous matter.

Shottelius[1] found that miliary nodules in the lungs resulted, in dogs, alike from the inhalation of the pulverized—spray—sputum of phthisis and of bronchitis.

Toussaint affirms that the tubercular deposits resulting from inoculation with non-tubercular material are not infectious, and that experimental pseudo-tuberculosis may be distinguished from tuberculosis proper by inoculation experiments, although the pathological anatomy of the two diseases is identical.

If we accept the view that the tubercular nodules are of inflammatory origin, we can readily understand how both living and non-living particles may give rise to local inflammatory processes, resulting in similar pathological products, and the infectious or non-infectious character of these products would then be explained by the presence or absence of living organisms, in accordance with the views of Burden-Sanderson,[2] who says, "*Whenever an inflammation becomes infectious, it owes that property to chemical change in the exudative liquid, of which the presence of microzymes is a necessary condition.*"

The weight of experimental evidence seems to the writer to favor the view that the specific properties of Koch's bacillus depend upon its ability to locate itself in certain situations, rather than in any power to produce a special kind of inflammation, giving rise to products having specific characters. If this is the case, we should expect that other organisms capable of locating themselves in the same situations would likewise give rise to tubercular neoplasms. In a recent communication to the French Academy of Sciences, we have evidence presented that such is the case.

M. Laulainé,[3] in a note presented by M. Bouley, on the 2d of January of the present year, makes the following statements:

The author had recently observed in the lungs of a dog the alterations produced by the eggs of a nematoid worm, the *strongylus vasorum* (Baillet), which possess great interest, because of their apparent identity with those of tuberculosis. These *strongyles* in the adult state live in the right ventricle and in the larger divisions of the pulmonary artery. Here they are massed together in balls of greater or less magnitude, which consist of individuals of both sexes. These masses are restrained from being washed away by the blood-current by anastomosing fibrous bands, which are developed as the result of an endarteritis, which is infallibly produced by the presence of the parasites. The fertilized eggs emitted by the females in these tangled masses in the central part of the circulation, are carried along by the current to the smallest arteries and capillaries, where they are arrested and where the embryos are born. These emigrate immediately to the smaller bronchial tubes. The lungs of dogs infested with this parasite are filled with fine gray granulations, the histological characters of which are described by the author as follows:

"The eggs and the embryos arrested in the smallest *arterioles* become the point of departure of a nodular arteritis, presenting in its structure all the characters assigned, since Köster, to the elementary follicles of tuberculosis. At the centre of each nodule is found an egg or an embryo enclosed in a giant cell, this is surrounded by a more or less abundant collection of *epithelioid* cells or by an exterior embryonic zone which tends frequently to become fibrous."

The author points out that this pseudo-tuberculosis affects especially the base of the pulmonary lobes, differing in this respect from true tuberculosis which is located by preference at the summit.

The present writer intends to repeat the experiments of Koch, if circumstances and the limited facilities now at his command enable him to do so, and if any results are attained worthy of record, proposes to communicate them in a second paper to which this will serve as an introduction.

[1] Experimentelle Untersuchungen über die Wirkung inhalirter Substanzen. Archiv. f. path. Anat. und Phys., lxxiii. p. 524.

[2] The Lumleian Lectures on Inflammation. British Medical Journal, April 15, 1882, p. 527.

[3] Sur une tuberculose parasitaire du chien et sur la pathogénie du follicule tuberculeux. C. R. Ac. des Sci., t. xciv. p. 49.

MEDICAL PROGRESS.

OVARIOTOMY IN BERLIN.—In a recent number of the *Berliner klin. Wochenschrift* PROF. SCHROEDER gives a brief summary of 300 cases of ovariotomy performed by him. His result as to mortality is this—seventeen deaths in the first hundred cases, eighteen in the second, and only seven in the third. This mortality of 7 per cent. in the last hundred, Prof. Schroeder proceeds to minimize further, by saying of three of the fatal cases that death was not due to ovariotomy *per se*. In one of these there were several uterine myomata, and he attributes the peritonitis which in this case carried off the patient, to the diminution in the blood-supply of these tumors caused by the ligatures. Two others died suddenly from heart-disease, on the eighth and fourteenth day respectively after the operation. One in the second hundred died on the eighth day from the same cause. Another case, in which a portion of the cyst had to be left behind, died in the sixth week. The three others died from septic peritonitis. No case in which the operation was simple ended fatally. With regard to this method of viewing the cases, although we admit that Prof. Schroeder is quite justified in taking the attitude he does, yet it is not the one best calculated to help forward science. An operator, in judging his own results, ought to accept no excuses. He should regard every death as due to his own fault—either directly, from some error in the operation or the after-treatment; or indirectly, from his not having foreseen the state of things which led to a fatal termination. He should, without mercy to his reputation, include all incomplete operations, or cases in which erroneous diagnosis led to failure. It is only thus that he will make his mistakes into warning lights, marking out the path of safety more precisely than before. These remarks, however, apply little to Prof. Schroeder himself; we make them for the sake of those who, we fear, may be tempted by his example to try and explain away their death-rates. As our readers will expect from his good results, Prof. Schroeder operates with all antiseptic precautions, including the spray. He thinks it would be to the advantage of patients if all these

operations were left in the hands of specialists, for it is only experience that can give fertility in resource when difficulties have to be overcome. He now thinks it possible to remove *any* ovarian tumor; and he mentions two cases in which at an early period in his career he opened the abdomen, but gave up the attempt to remove the tumor, and subsequently, when his experience was larger, again opened the abdomen and successfully extirpated the disease. Age he regards as no contra-indication; he has removed one tumor from a child of thirteen, and another patient left the hospital convalescent on the day before her eightieth birthday.—*Med. Times and Gaz.*, May 6, 1882.

PHYSIOLOGICAL ACTION OF BOLDO.—M. VERNE made a series of experiments on himself with boldo (the leaves of the *boldea fragrans*, or *peumus boldus*), and came to the following conclusions regarding its action (*Bull. Gén. de Thérap.*). The essential constituents of boldo, including boldine and some aromatic principles, are eliminated by the urine. Boldo does not influence the circulation, the temperature, or the quantity of urine secreted. It augments to a sensible degree the elimination of urea. The author thus places it alongside coca, the action of which on nutrition is similar. He notes also that he has frequently observed, both in himself and others, slight excitement during the first day that the medicine was taken; but this soon disappeared, and not uncommonly patients recovered sleep which they had previously lost through anæmia or some other cause which destroyed the equilibrium of the nervous system.—*Glasgow Med. Journ.*, May, 1882.

LUPUS ERYTHEMATOSUS.—DR. TH. VEIEL draws the following conclusions from his study of this subject:

1. Lupus erythematosus is an independent disease, and not a form of lupus vulgaris.

2. A connection between lupus erythematosus and scrofulosis, tuberculosis, and syphilis cannot be established.

3. The affection of the sebaceous or sweat-glands is an accidental accessory phenomenon. The essential nature of lupus erythematosus consists in the pathological alterations which are found along the course of the bloodvessels.

4. No remedy has as yet been discovered, the internal use of which produces a cure of lupus erythematosus.

5. The most efficient local remedy for lupus erythematosus is multiple scarification, in connection with subsequent cauterization with chloride of zinc.—*Arch. of Dermatology*, April, 1882.

THE INFLUENCE OF THE PNEUMOGASTRIC NERVE ON RESPIRATION.—ROSENTHAL has been devoting a great deal of attention to the innervation of the respiratory movements, and from some recent experiments (*Arch. f. Anat. u. Phys.*, 1882) concludes that:

1. Fibres are to be found in the vagus, probably arising in the lungs, whose irritation produces weaker and faster respiratory movements by acting on the respiratory centre; strong irritation of these fibres arrests respiration in inspiration. He calls these the "regulating fibres."

2. Fibres were also found in the superior laryngeal nerve, whose irritation slowed the respiratory movements and made them deeper, or by strong irritation entirely arrested them. He calls these the "respiratory inhibitory fibres."

3. Irritation of the inferior laryngeal nerves causes arrest of breathing in expiration. Since this effect can only be produced by strong irritation, and not in narcotized animals, or in those in whom the cerebrum has been removed, they cannot act in the same manner as the above-described inhibitory nerves, and are probably merely sensory fibres with only an indirect influence on the respiratory movements.

4. Large doses of chloral (0.3 gramme injected into a vein) prevents the action of the regulating fibres, but does not interfere with that of the inhibitory fibres.—*Centralb. f. d. Med Wissen.*, June 3, 1882.

CRICO-THYROID LARYNGOTOMY.—M. RICHELOT reports a case of laryngotomy performed by opening the crico-thyroid membrane as a preliminary to excision of the tongue and part of the lower jaw for extensive epithelioma, and believes that this method of opening the air passages is in adults less dangerous than tracheotomy, and has many advantages.—*L'Union Méd.*, June 1, 1882.

ATROPIA IN THE TREATMENT OF CORYZA.—DR. GENTILHOMME has used atropia, in doses of one-half a milligramme in pill form, in a number of cases of coryza, and think that it is extremely efficacious in both acute and chronic coryza, particularly at the close of an acute attack when associated with bronchitis.—*Union Méd. et Sci. du Nord Est*, May, 1882.

TREATMENT OF CHANCRE BY GLYCERINUM BORACIS.—DR. GEORGE THIN recommends the constant touching of chancres with glycerinum boracis, and reports three cases in which it appears to have produced good results.—*Lancet*, May 27, 1882.

EMBOLISM OF THE CORONARY ARTERIES.—DR. POPOFF (*Vratch*, 1882, No. 2) describes the following case of this rare affection. The patient, a sailor, aged 53½, had had an apoplectic attack about one and a half years previously, at which time aortic insufficiency had been recognized. One morning there suddenly appeared sickness and vomiting. When immediately seen by the author, the patient bore an appearance of extreme horror, and was sitting, being unable to lie down. His extremities were cold and covered with clammy perspiration; his lips were livid. Examination showed complete absence of the pulse in all accessible arteries, and neither apex-beat nor heart-sounds could be detected. The ear, applied to the cardiac region, could hear only a kind of cardiac tremor, which was very like the sound of a vibrating steel-plate. There was no loss of consciousness. Respiration was regular and rhythmical, not exceeding eighteen to twenty. Twenty hours after the first symptoms, the patient was dead. This affection was diagnosed during life, though the author had never before met any similar case in his practice. The alternative in diagnosis lay between embolism of a branch of a basilar artery, and embolism of the coronary arteries of the heart. Dr. Popoff accepted the latter alternative, on the ground (1) of the regularity and rhythmic character of the respiration; and (2) of the enfeeblement of the heart's action, which was transformed into simple oscillatory movements. Necropsy confirmed the diagnosis. There were found sclerosis of all the bloodvessels at the base of the brain; anæmia of the brain; venous congestion of the cranial bones and meninges; old apoplectic foci, in the stage of softening, in the right corpus striatum, and the posterior horn of the right lateral ventricle; pericarditis, endocarditis, and myocarditis; ossification of both coronary arteries of the heart, with complete thrombosis of their longitudinal branches; œdema of the lungs, and venous hyperæmia of the spleen, the liver, and the kidneys. The cardiac symptoms observed in the case are in strict harmony with the results of Samuelson's experiments on ligature of the coronary arteries in rabbits.—*London Med. Rec.*, May 15, 1882.

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HEAT-EXHAUSTION AND HEAT-STROKE.

AT the approach of Milton's "solstitial summer's heat," it behooves us to be prepared for the consequences of prolonged high temperature. By those who preserve tranquillity of mind and a healthy state of the bodily functions, summer's heat and winter's cold are alike faced with impunity. The regulating mechanism by which the temperature of the body is maintained at a uniform level, what changes soever may occur without, does not fail in the performance of its beneficent task. When, however, disturbing influences are introduced into the daily life, or the mechanism of heat production and heat elimination is disordered by disease, serious consequences ensue, and he can the better encounter them who has formulated in his mind well-defined principles of action.

A distinction of immense practical importance exists between *heat-exhaustion* and heat-stroke, or *coup de soleil.* It is much to be feared that this difference too often passes unregarded, to the serious detriment of the patient. Heat-exhaustion, as the term implies, means a sudden cerebral anæmia produced by work or muscular exercise in a high temperature. Heat-stroke, or sun-stroke, signifies the sudden access of unconsciousness with high febrile heat. In the former the body is cool, the skin moist, or wet with perspiration, the pulse small, feeble, and low in tension, the muscular system relaxed, the pupil dilated, and the mind feeble, but consciousness is not lost, or is restored after a syncopal state of brief duration. In the latter there is profound unconsciousness, contracted pupil, injected conjunctivæ, the skin is hot and usually dry, the temperature high or hyperpyrexial, the pulse rapid and its tension high, and the muscular system is often convulsed and tends rather to rigidity than relaxation.

Upon a due recognition of these antipodal states depends the success of the treatment instituted. If heat-exhaustion be treated by the measures proper in thermic fever, or *vice versa*, the result will be disastrous. It follows that a careful study of the conditions present, should precede any therapeutical measures. If the case be one of heat exhaustion, the patient will probably be able to swallow. Repose in the shade in the recumbent posture, and a few drops of laudanum in a tablespoonful of whiskey or brandy, will quickly bring about restoration.

The conditions are greatly more complicated when we have to deal with the unconsciousness of true sunstroke. Our readers need hardly be told that there are several varieties and grades of heat-fever. That there is a fulminant form in which paralysis of the heart ensues so suddenly that no therapeutical measures can be instituted, is a fact which invests the prodromes when they do occur with peculiar interest and importance. Usually, however, when the physician is summoned the character of the case is decided; the patient then lies unconscious and cyanosed, the breathing is shallow or stertorous, the muscular system is in a state of resolution and all the reflexes are abolished, and the temperature is above the danger line, somewhere from 105° to 110° Fahr. In a few cases, in addition to these symptoms, clonic convulsions, or epileptiform attacks, or tetanic rigidity of the muscular system occur.

As the mortality of heat-fever is great, its course rapid, and the measures of relief of uncertain value, prophylaxis assumes a high degree of importance. As those who have exhausted the nervous system by various excesses are the chief victims, obviously the great measure of prevention is sobriety. It is not alone alcoholic excess that predisposes to attacks. Venery, late hours, bad air, excessive tobacco-smoking, are amongst the depressing causes to which attacks of heat-fever have been attributed. Exposure to the direct rays of the sun is not alone necessary; to the existence of a high temperature of the atmosphere in general, and a disturbed state of the relations between heat production and heat elimination effected by the causes above mentioned, must the attacks be attributed, and hence the measures of prophylaxis must include the means of avoiding both sources of danger. Another pathogenetic factor, about which, however, differences of opinion may well exist, is the sudden ingestion of a large quantity of ice water. The extreme cold acting on the terminal filaments (end organs) of the pneumogastric nerve, may excite a sudden "restraint" and paralysis of the heart. There is, however, another

explanation of the sudden death which sometimes ensues after swallowing an enormous volume of water. The free perspiration has so diminished the quantity of water in the blood, that absorption becomes excessively rapid, and the red blood-globules are damaged and suddenly cease to functionate. If these factors exert an influence, as seems probable, it is, obviously, the part of wisdom for those working in a high temperature to drink water slowly and moderately.

In the case of true heat-stroke the victim should be at once removed to the shade, to as cool a spot as practicable, and should have cold water thrown on him, be rubbed with pieces of ice, and have ice applied to the head and spine. In the convulsive form of attack, the hypodermatic injection of morphia is indicated; indeed, no measure appears to have relieved a larger proportion of cases of all kinds. The administration of quinia by the subcutaneous method is, also, a remedy of great value for the reduction of the abnormal heat. It is probable that the subcutaneous injection of pilocarpine will prove very useful in cases with a dry skin and suspended action of the kidneys. The inhalation of chloroform has succeeded in the cases characterized by great restlessness, and by convulsions. The hypodermatic injection of chloral (ten grains to twenty grains), repeated as necessary, will also be found to lower the temperature and allay excitement, and, it may be, restore consciousness. We especially commend to our readers these new expedients, which promise so much utility in the treatment of a condition hitherto but little amenable to any therapeutical measures.

DROWNED OR POISONED?

EXPERTS are still puzzling Court and jury with the question of Jennie Cramer's mode of dying. In a recent issue we reviewed the subject of arsenical poisoning. As the signs and symptoms of drowning have been newly taken up by some experts for the defence and in rebuttal, it may be useful to call attention to the principal points connected with that topic.

Was Jennie Cramer dead when her body was deposited in the water? was she stunned by the shock of the fall in the sand? or did she die by drowning? Sufficient arsenic to kill was found in the body, and in such a state of diffusion as to warrant the inference that this poison had been taken in solution, and for a short time previous to death. The absence of inflammation of the stomach was held to be one of those exceptional cases, but not uncommon, in which the force of the poison was expended on the nervous system.

Some sand was found in the gullet, but none in the stomach, and no sea-water in the stomach or lungs. This negative fact was held by the prosecution to destroy the theory of death by drowning. The presence of sand in the fauces was explained by the fall of the body in shallow water, the face being projected in the ground. Prof. Harris, of Harvard College, summoned for the defence, maintained that the presence of water in the lungs and stomach was not necessary, but that the half pint of reddish fluid found in the pleural cavities, and the dusky hue of the countenance, were conclusive of death by drowning. The reddish fluid, he maintained, was water which had percolated through the lungs, and that no water was found in the stomach was due to the fact that Jennie Cramer, in precipitating herself into the shallow water at Savin Rock, was stunned. Against Prof. Harris, of Harvard, was summoned Dr. Wooster Beach, Deputy Coroner of New York. Whilst Dr. Harris had inquired into 140 cases of drowning, and had made autopsies in 40 of them, Dr. Beach had examined 850 cases of drowning, and had made autopsies of 50 to 75. Justified by so large an experience, Dr. Beach was disposed to speak by authority. He finds the presence of water in the lungs and stomach necessary in cases of drowning, and has but little confidence in the value of a reddish fluid in the pleural cavity as a sign, since this is so often present in death from any cause, if decomposition has begun.

The Boston and New York experts were thus placed in direct antagonism. To those unacquainted with the nature of such observations, an opposition of opinions is an indication of the insincerity of expert testimony, and of the uncertainties of medical science, whereas the fact is, that both experts were correct in their expressions of opinion. The opposition is apparent, and due to the mode in which such testimony is brought out by the prosecution and by the defence. No case could better exhibit the mechanism by which experts are made to differ. Both sets of facts may be true of cases of drowning, and hence in any special instance the associated circumstances possess a high degree of value. The attorneys for the prosecution on the one hand, and for the defence on the other, use experts to develop the facts necessary to their own side. Hence in this case, whilst the prosecution wished to show that Jennie Cramer was poisoned by arsenic, and her body afterwards thrown into the water, the defence were equally interested to prove death by drowning. The appearances were not characteristic, and hence the opportunity afforded counsel to develop contradictions which are merely apparent, and which are readily reconciled. If the object of the investigation were to ascertain the truth, an expert selected by the Court could state the positive and negative facts bearing on the theory of drowning.

It is fortunate that the medical profession has been well represented. The gentlemen appearing on both sides have exhibited an intimate acquaintance with the subjects on which they testified. That they appear in an aspect of antagonism is not a reflection on them, or on medical science, but is due simply to the fact that the case presents many points of obscurity, and is in no respect typical, whence it follows that negative evidence approaches the positive in value.

THE CHLOROFORM DISCUSSION IN THE PARIS ACADEMY OF MEDICINE.

FOR some weeks past the Académie de Médecine of Paris has been discussing the dangers of chloroform and the mode of avoiding them. As a ghastly commentary on the debate, during its very continuance, and in France alone, three cases of death from chloroform were published, the relation of one of which appropriately closed the discussion: A man aged thirty-one, in perfect bodily health, but who suffered from an intractable sciatica. Dujardin Beaumetz stretched the nerve by forced extension of the leg. The chloroform was pure, was given on a simple compress, and intermittently, and yet before ℥ijss had been inhaled he suddenly died, and neither the reversed vertical position, artificial respiration, electricity, nor tracheotomy, was of the slightest avail.

The reply of Gosselin, that the more such accidents multiply the more necessary it is to establish precise rules for the administration of the anæsthetic, is surely not enough. The more such accidents multiply the more diligently should the search for a *safer anæsthetic* be the object before us. As M. Rochart well said, the only question during the discussion had been that of death—death by asphyxia, death by syncope, death by intoxication, death in the first period, death in the second, "partout et toujours la mort;" and Le Fort reported that he had himself statistics of two hundred and fifty deaths from its use.

Ether seems scarcely to have had a champion. True, Vulpian said it was used in the laboratory and on animals because of its greater safety, and Panas recommended its use in the profoundly anæmic. But no one seems seriously or vigorously to have asserted its claims as the safest and, therefore, the best anæsthetic. Clearly Japan is not the only country that needs a medical missionary.

THE PENNSYLVANIA COMMISSION TO INQUIRE INTO THE LUNACY LAWS.

WE are very glad to see that Governor Hoyt has appointed Dr. Jos. A. Reed, of Pittsburg, Gen. Hartranft, Messrs. Richard C. McMurtrie, George L. Harrison, and L. Clarke Davis, and Drs. S. Weir Mitchell and J. T. Rothrock, a Commission to inquire into the lunacy laws of this State, and to report in time for their recommendations to be embodied in his message to the Legislature at their session during the coming winter.

The *personnel* of the Commission could not be better. Of the medical men we need not say a word; their names are a sufficient guarantee that good judgment, independence, and experience will mark all their recommendations. Law finds one of its foremost representatives in Mr. McMurtrie; Mr. Harrison, so long connected with the Board of Public Charities, will bring a large experience to the work; Gen. Hartranft will represent the political side of the question, if such there be; and Mr. Davis well represents the press.

We trust that the Commission will make some of the radical changes already alluded to in the columns of THE NEWS. Especially as to the commitment of the insane, whether in public or private asylums, the blanks should be far more specific, and the qualifications of the certifying physicians should be clearly defined. We trust also that they will provide for frequent and thorough inspection, especially of private hospitals, by regularly appointed and well qualified Commissioners in Lunacy, after the English model.

MEMORIAL CHAIRS IN OUR MEDICAL COLLEGES.

WE are very glad to see movements in both the University of Pennsylvania and the Jefferson Medical College to endow memorial chairs, as is so commonly done in the literary and theological departments of our colleges. In the former, as was seen by the circular we published last week, it is proposed to raise $100,000, the income of which shall be paid to Prof. Joseph Leidy during his life-time, and at his death it shall be devoted to the maintenance of the Joseph Leidy Professorship of Anatomy. In the latter it is proposed to raise $50,000 to endow the S. D. Gross Professorship of Pathological Anatomy. It is eminently fitting that two of our most distinguished medical men should be so honored. Modesty and merit both claim such recognition for them. It is an example to be followed in many other cases. John Rhea Barton is the only medical name at present so commemorated in this city. Why should not the memory of such an eminent surgeon as the late James R. Wood be so perpetuated; or, in time to come, the representative of Boston surgery, who, to the regret of the whole profession, has lately resigned his chair, and many others, in various medical centres, whose names are indissolubly connected with their chosen chairs of teaching?

Might not some of our rich men—yet so modest that they would not even wish their own names to

be attached to a chair—find in this proposal a mode of solving the difficulty, and at the same time of honoring men dear to science; rich in ideas, rather than in shekels.

GUITEAU—FINIS.

PUBLIC and professional interest is attracted anew to the subject of Guiteau's mental condition by the final appeal to the President which has just been made in his behalf. The late efforts of some eminent New York psychiatrists and neurologists have been not without effect. Any change of opinion wrought by them is, however, limited to the small number of specialists, medico-legal experts, and humanitarians, who subscribe to the doctrine of moral insanity, and who are, therefore, brought to recognize the existence of that form of mental disorder of which Guiteau furnishes an excellent example. Without questioning the justice or the propriety of the position, we may, at least, appeal from the conclusion to which a too partial adherence to their views conducts them.

We believe that a true conception of right and wrong, and a just appreciation of the consequences which must follow from pursuing the wrong, should be the test of legal responsibility. Such is the view of the legal profession. The class of alienists above referred to have, however, followed their opinions to their logical conclusions, and have held, and do now hold, the irresponsibility of the subjects affected by the so-called moral insanity.

Although abstractly regarded, their position is correct, there are so many practical obstacles to the application of this view that the safety of society, we are firmly convinced, requires us to adopt the legal view of criminal responsibility. The loose way in which the criminal insane are held in confinement, the liberty accorded to so many dangerous lunatics, and the ease with which a man with means may free himself from asylum restraint, render the application of the doctrine of moral insanity, as held by some alienists, in a high degree injurious to the public. The safety and happiness of the people are far more important than the mere restraint for life, or than the death of an occasional lunatic who is conscious of the nature of his crimes, although influenced to their perpetration by some form of delusion. Humanitarian considerations and an obstinate adherence to views which seem to be a logical outcome of theoretical opinions, ought to yield to the far higher claims of society for protection against an enemy whose existence operates as a constant menace to the happiness and well-being of any one who may happen to cross his path. Guiteau suffers the penalty for a crime of whose nature and consequences he was fully aware.

IS IT TRUE?

IN an advertising announcement of a book on opium-smoking in America and China (mark the association), we find the following startling statement:—

"It is estimated that there are at least six thousand men and women who are slaves to this vice. It is daily spreading with frightful rapidity, and bids fair to outrival every other form of the opium habit."

To give emphasis to this alarming declaration, the publishers' advertisement is embellished with a sensational cut entitled a "Group of American Opium Smokers." They are represented in impossible attitudes—a woman in the act of taking a pipe from a man engaged in lighting the already filled bowl, reversing the garden of Eden scene, in which the woman tempts the man. Barring the unseemly character of the advertisement, we may, at least, be permitted to ask the question, is this true? Is it true that so many Americans—we do not mean Chinese in America—are now addicted to this vice? Is it true that this opium-smoking is "spreading with frightful rapidity?" The Messrs. Putnam declare it formally, and over their own signature. Without presuming to question their truthfulness, we may at least inquire, where is the evidence? Who has collected the statistics?

THE reporters, eager to impart an interest to their communications, do not spare the experts who are so unfortunate as to testify on the Malley trial. In the report for June 22d, we find that Dr. Pliny A. Jewett is entitled "the Jumbo of New Haven therapeutics."

It is also stated that Dr. Jewett, and Dr. Beach, of New York, "listened to the Harvard Professor with corrosive interest," and that the "Yale Professors were out in force, awaiting an opportunity to trip the gentleman from Harvard."

In this, and many other ways, medical experts are belittled, and their science made to appear false or unsettled.

PROF. HARRIS, of Harvard College, has, it appears, written several plays, which have been successful. The District Attorney used this fact to disparage his professional acquirements.

Mr. Doolittle (insultingly).—"You have written plays which were produced on the stage?"

Dr. Harris.—"I have."

Mr. Doolittle.—"That's all."

Nothing more was necessary to give the jury an unfavorable impression of Dr. Harris. Experts should govern themselves accordingly.

SOCIETY PROCEEDINGS.

AMERICAN NEUROLOGICAL ASSOCIATION.

Eighth Annual Meeting, held at New York, June 21, 22, and 23, 1882.

(Specially reported for THE MEDICAL NEWS.)

JUNE 21ST. AFTERNOON SESSION.—The American Neurological Association convened in the Hall of the New York Academy of Medicine, June 21, 1882. In the absence of the retiring President, Dr. Roberts Bartholow, the Secretary, Dr. Seguin, called the Association to order at 2.30 P.M., and introduced the President-elect, Dr. William A. Hammond, of New York.

DR. HAMMOND thanked the Association for the honor conferred upon him by electing him to the presidency. He thought the Association had great cause for congratulation for the work it had already done, in view of the indifference of many and the hostility of a few. Nowhere in the world was neurological science better cultivated than in this country, and he thought the Association had no reason to feel ashamed of the part it had taken in it. There was one point which he wished to call attention to, namely, the formation of local neurological societies throughout the country. These would be a great stimulus to special work and would serve as feeders to the Association.

The reading of the minutes of the last meeting being called for, it was moved by Dr. McBride that, as they had been printed and sent to each member for perusal, their reading should be dispensed with. Carried.

THE SECRETARY, DR. SEGUIN, reported that he had received a letter from Dr. Bartholow, expressing his regrets at not being able to be present. He also reported the receipt of several pamphlets and monographs from Dr. M. Bernhardt, associate member of the Association.

ELECTION OF OFFICERS.

The following officers were duly elected:

President.—R. T. Edes, M.D., of Boston.

Vice-President.—Dr. W. J. Morton, of New York.

Secretary and Treasurer.—Dr. E. C. Seguin, of New York.

Members of Council.—Dr. F. T. Miles, of Baltimore, and Dr. J. C. Shaw, of Brooklyn.

MISCELLANEOUS BUSINESS.

Dr. R. W. Amidon moved that the selection of the place for the next annual meeting be left to the discretion of the Council. Carried.

Upon motion of Dr. Shaw, Dr. Jewell's amendment to the constitution, viz.: "That all active members of the Association who shall remove from within the limits of the United States shall hereby become associate members should they so desire," was carried.

Dr. Seguin reported that only one essay had been handed in for the Hammond prize of five hundred dollars for the best account of the functions of the thalamus opticus, and that this essay was not considered of sufficient worth to merit the prize.

DR. HAMMOND announced that he would very gladly renew his offer for another year, and, if at the end of that time the prize was not awarded, he would pay it to the Association, with the understanding that it should form the basis of a fund to promote original investigation.

The first paper was by DR. R. W. AMIDON, of New York, entitled

THE MYOGRAPHY OF NERVE DEGENERATION IN ANIMALS AND IN MAN.

As a sphygmogram is a pulse-tracing, so a myogram is a muscle-tracing. By means of a mechanism, which was described, a muscle by its contraction moves a lever which makes a mark on the smoked paper of a revolving cylinder. It writes indelibly on paper the following facts: Quickness of muscular contraction and relaxation, amplitude of the muscular movement, and by means of some accessory apparatus, the quickness of contraction after the application of stimuli, and the effect of a continuance or a withdrawal of the same. Dr. Amidon first experimented upon healthy frogs, and afterwards upon those in whom the brain and spinal cord had been broken up to stop voluntary and reflex movements. The myographic studies undertaken in man were chiefly in cases of nerve injury or diseases which cause nerve degeneration and muscular atrophy. Dr. Amidon asserted that a careful perusal of the explanatory text which accompanied the plates exhibited, and a comparison of the different tracings among them, would reveal the following facts:

First, the identity as to form and relation of human and frog myograms in health.

Secondly, the great similarity of the pathological myograms in frogs and man.

Thirdly, the marked myographic changes where slight trophic disturbances affect human muscles.

Fourthly, the profound alterations in contour of myograms of muscles for a long time severed from the vitalizing power of their nerve centres.

DR. W. J. MORTON inquired if the author of the paper took into consideration the polar differences of the induced current.

DR. AMIDON replied that he did not think there were any polar differences.

DR. ROCKWELL asserted that the positive pole had a greater influence over the uterus than the negative pole, and that there must be a difference which ought to be taken into account in such delicate experiments as those alluded to in the paper.

The next paper was by DR. GEORGE M. BEARD, of New York, upon

THE SYMPTOMS OF SANITY AND THE DIAGNOSIS OF INSANITY.

DR. BEARD stated that the object of his paper was two-fold; *first*, to show what a sane man was. The normal retina, ear-drum, throat, and the normal condition of the parts of the body in general, have long been studied in order to enable us to know when disease attacks the body, but no one has studied the normal mind in such a way as to contrast it with an insane mind. The *second* object of his paper was to reconstruct the subject of insanity on the basis of evolution; to carry evolution into psychology. The law of evolution is the highest generalization the human mind has ever reached, and it is greater than gravity, and is revolutionizing the science of medicine. It originated, in its modern phase, in the brain of Herder, was developed by Goethe, and more recently still by Herbert Spencer, and Darwin, who has passed away. Dr. Beard said the *symptoms of sanity* were as follows: *first*, activity of the instinct of self-preservation; *second*, adaptation to environment; *third*, correspondence of character to age and station; *fourth*, remembrable consciousness. He who responds to all these tests is a sane man, no matter how sick he may be in body or mind. He who does not respond to these tests is an insane man, no matter how well he may be in body. Insanity is a disease in which mental responsibility is seriously impaired. There can be no insanity with perfect responsibility. The very essence of insanity is irresponsibility. Dr. Beard exhibited a diagram based upon evolution. It represented the most important nervous diseases in the form of a tree, each disease being a branch; one side being devoted to physical, the other to mental, diseases. On the

mental side were trance, hypochondria, mental hysteria, hystero-epilepsy, and insanity. On the physical side were chorea, neuralgia, neurasthenia, physical hysteria, epilepsy, and paralysis, beginning at the bottom and going to the top of the tree. Dr. Beard said that when mental disease attacked a person the symptoms began from above downward. The symptoms of *insanity* appeared in the following order, the later acquisitions first disappearing and then the earlier. There is, *first*, a decline in the manners, that is, minor morals, and then more extensive moral decline. *Second*, the power of originating thought. *Third*, the power of acquiring thought. *Fourth*, decline in memory of recent events. *Fifth*, decline in the memory of old events. There can be no insanity without moral decline. When a worm gnaws at the roots of a tree it is the blossoms that first begin to fade. When insanity attacks a mind it is the minor morals that are first destroyed. When an insane man wishes to kill, the chances are twenty-five to one he will kill himself; next to himself he will kill some relative or friend whom he dearly loves, as a wife or child. The third temptation is to kill some public character, any one who happens to be prominently before the public and excites the emotional nature. When any person without a confederate kills or attempts to kill the President of the United States or the Queen of England, the presumption is, a thousand to one, that he is crazy. Dr. Beard then went on to give, by means of his four tests of *sanity*, the differential diagnosis between fanaticism and insanity; between genius and insanity; between vice and insanity.

DR. J. J. PUTNAM, of Boston, read a paper entitled

CONTRIBUTIONS TO THE STUDY OF CENTRAL MYELITIS.

The paper consisted of a carefully written history of a hospital patient, together with an account of the post-mortem appearances. The history of the case illustrated that it was possible for such a patient to improve to a considerable extent, while at the same time there was an advance of the lesion. The case afforded an opportunity of referring to Dr. Ross's views, who thinks that the spinal cord should be divided into fundamental and accessory portions.

DR. MILES remarked that in cases of multiple neuritis the diagnosis is made upon loss of faradic contractility, non-implication of bladder and rectum retention, and loss of ankle clonus and tendon reflex. It was true that tendon reflexes were lost in poliomyelitis anterior, but here we should not expect pain.

DR. PUTNAM said that it was just this point which puzzled him. He was struck with the prominent symptom pain in the cases of poliomyelitis collected by Dr. Seguin. He thought it remained for future investigation to determine whether the peripheral nerves were first involved, and the affection of the anterior cornua was secondary to that. He had made no record of the faradic reaction.

DR. BEARD inquired if the observations were not in harmony with Dr. Ross's views.

DR. PUTNAM was not prepared to answer this question.

DR. WEBBER thought that the case reported supported Dr. Ross's views to a very considerable extent.

DR. E. C. SEGUIN, of New York, next reported a *Case of Injury to the Motor Area of the Brain.*

JUNE 21ST.—EVENING SESSION.

THE PRESIDENT, Dr. Hammond, called the Association to order at 8.30 P.M.

Dr. Miles was requested to take the Chair while DR. HAMMOND read the following paper

ON THE SO-CALLED FAMILY OR HEREDITARY FORM OF LOCOMOTOR ATAXIA.

Twenty years ago, when doubt existed relative to the seat and nature of the lesion constituting the disease now generally known as locomotor ataxia, Friedreich, of Heidelberg, published an elaborate essay, of which the title, "On Degenerative Atrophy of the Posterior Columns of the Spinal Cord," indicated the view which he entertained of the morbid anatomy. All writers had, so far as Dr. Hammond knew, accepted without question, Friedreich's view of their character, while no one had thought it worth their while to study them in the light of our present knowledge. No neurologist of the present day, after a full consideration of these cases, would regard them as instances of locomotor ataxia. In every one of Friedreich's cases the first symptom observed was weakness of the lower extremity, which gradually extended so as to involve the upper extremities. We find also that in no single case at any period of its course was there the slightest loss of cutaneous or muscular sensibility. In no case was there any derangement of the excretion of urine. Dr. Hammond thought that when, as in Friedreich's cases, the lancinating pains are not invariably met with, in fact, being very rare, when there is no swaying of the body on closure of the eyes, when the inevitable result is that the morbid process extends upwards, that the speech becomes affected, that the pupils are always equal, not contracted, and reacting perfectly to light, we have an *ensemble* of symptoms which are absolutely incompatible with the idea of primary degeneration in any part of the posterior columns of the cord.

Dr. Hammond reported in full the histories of twelve cases similar to those of Friedreich's which had come under his own observation. These examples of the disease all occurred in children. All were healthy up to the time of the appearance of the paralysis. Parents usually healthy. The disease begins with weakness in the lower extremities and then gradually advances upward with nearly complete freedom from pain. In all the speech was involved in a peculiar manner. The pupils were equal in size and normal in reaction. The gait of these children was altogether different from that of ataxics. Instead of the feet being put down with a jerk and in two distinct movements, they were moved exactly like those of a drunken man when he attempts to walk. For these reasons Dr. Hammond could not consider the cases in question to be instances of locomotor ataxia or sclerosis of the columns of Burdach. These columns might in some cases be affected, but in such it was clearly a secondary phenomenon.

In the absence of sufficient post-mortem evidence, Dr. Hammond hesitated to assign a locality to the lesion which constitutes the pathological entity of the cases to which he had referred. He was inclined to think, however, that its primary seat is the medulla oblongata. This opinion was based on a careful consideration of the symptoms.

DR. SEGUIN had seen at least a dozen cases of this kind of which he had notes. They had occurred in families, varying from one to three. He had always considered Friedreich's cases as examples of disseminated sclerosis of the spinal cord. The same was true of Carre's case. Nystagmus, imperfection of speech, ataxia and yet absence of pains, anæsthesia and the peculiar iris symptom which we expect in post-spinal sclerosis, were characteristic symptoms of these cases.

DRS. ROCKWELL and MORTON called to mind similar cases to those reported by Dr. Hammond.

DR. HAMMOND said the objection to considering these as cases of disseminated sclerosis was that tremor was absent upon attempting voluntary motion.

DR. H. M. BANNISTER, of Chicago, read a

NOTE ON BROMIDE MANIA, AND THE SUPPOSED COMPENSATORY ACTION OF EPILEPTIC ATTACKS.

Dr. Bannister referred to the fact that Dr. Stark had committed himself to the view that the maniacal excitement was due to the suppression of the fits rather than to the bromide. On the other hand, Dr. Hammond had noticed cases, which, not being epileptics, could not be accounted for on the theory of Dr. Stark. He then gave the history of the case in which the fits were suppressed by bromide with the result of producing maniacal excitement, which subsided at the discontinuance of the medicine. It was found that the attacks could be completely controlled, and the general condition of the patient much improved by the administration of a one per cent. solution of nitro-glycerine. He thought the case conclusive so far as one case could be.

DR. MILLS considered it a very important matter in discussing this question to clearly distinguish cases of hystero-epilepsy from those of epilepsy in regard to the action of bromide. There was a status hystero-epilepsy as well as an epileptic status. Bromides acted badly in hystero-epilepsy. With reference to the occurrence of mental disturbances in epileptics by the use of bromide, Dr. Mills spoke of three distinct conditions, namely, a pre-paroxysmal condition, a post-paroxysmal condition, and the substitution of the epileptic attack by a maniacal attack. Only in a very few instances had he seen bad effects from the use of this remedy.

DR. BANNISTER said there was no suspicion of hystero-epilepsy in the case reported.

DR. E. C. SEGUIN read a paper entitled

A CONTRIBUTION TO THE CLINICAL STUDY OF ARSENICAL MYELITIS.

The three cases reported were rare sequels of Paris-green poisoning. A summary statement of them may be made to the effect that they all presented evidences of slight sub-acute diffuse myelitis, more distributed in the anterior cornua. In case I., the symptoms were more purely those of poliomyelitis. In all cases, the symptoms of myelitis followed within a week after the ingestion of the poison. Whether the myelitis was caused by the direct action of the arsenite of copper upon the spinal cord, or whether it arose as a result of irritation of the nerves of the stomach and intestines, was the important question which he wished discussed by the Association.

DR. HAMMOND inquired if the poisoning was due to the copper or the arsenic.

DR. SEGUIN'S impression was that the effects reported were those of arsenic.

DR. AMIDON thought the cases reported were very similar to those of spinal-cord paralysis following diphtheria, and it had always seemed to him that their pathology must be somewhat similar.

DR. SEGUIN remarked that most of his cases of diphtheritic paralysis had shown a toxic stage previous to the paralytic stage.

DR. MILES saw no reason why the cases reported should not be looked upon as examples of general diffuse neuritis.

DR. SEGUIN thought that the irritation of the nerves of the mucous membrane might have led to the production of myelitis in a similar manner to its production by cold after exposure.

DR. HAMMOND stated that eighteen months ago he had a case similar to those reported by Dr. Seguin, in which the poisoning was clearly due to copper: the ammonio-sulphate was prescribed, with directions to take one-twelfth of a grain; instead of taking the number of drops ordered, the patient took an equal number of teaspoonfuls. Paralysis of all the muscles, except those of respiration, followed, and continued for seventy-two or eighty hours, when their functions were gradually regained.

DR. W. J. MORTON, of New York, read the next paper, entitled

MECHANICAL VIBRATION FOR THE RELIEF OF PAIN—A NEW PERCUTEUR.

Next to the anæsthetics and narcotics, counter-irritation has long held a prominent place in the treatment of pain. The general law which governs the relief of pain by counter-irritation remained unformulated until within a year, when M. Brown-Séquard, after careful experimentation, announced the general principle that general and local anæsthesia could be produced in the lower animals by applying to the peripheral nerve distribution a strong counter-irritant, and that this anæsthesia was explicable on the theory of inhibitory action. Within a few years delicate methods of affecting the sensitive peripheral network of nerves have been brought forward under the general term, æsthesiogenic agents. This work has emanated from the clinic of Professor Charcot, and has been elucidated mainly by Dr. Vigauraux. Hypothetically, all forms of force display themselves in vibrations; heat, light, sound. Nerve force, whatever its nature, is probably vibratile. There is a form of vibration which is communicated directly from the vibrating agency to the part to be treated. This may properly be called mechanical vibration, and it was that to which Dr. Morton wished particularly to call attention. To Dr. Mortimer Granville, of London, is due priority of treatment by this method.

DR. MORTON exhibited a new percuteur, in the construction of which he aimed at a mechanism which would have a more powerful stroke than Granville's clock-work percuteur and the dental hammer, and at the same time give less trouble than the tuning-fork percuteur, which required the use of a small galvanic battery. His instrument involves the idea of applying the vibrating rod directly to revolving hammers actuated by a crank movement.

Granville's hypothesis of the action of percuteurs is that sharp pains are represented by very rapid vibrations, and that "boring" and "grinding" pains are represented by comparatively slow vibrations. Consequently in order to break up either one or the other forms of pain, it is necessary "to set up a new set of vibrations, which shall interrupt or change the morbid set by introducing discord."

JUNE 22D.—AFTERNOON SESSION.

DR. JAMES J. PUTNAM, of Boston, exhibited two instruments. The first was a little *microtome*, to be held in the hand and used for the purpose of making sections of the spinal cord. The instrument avoided the necessity of imbedding the specimen. The second instrument was a modification of Pond's *sphygmograph*, the main advantage of which was that it provided the means of regulating the pressure on the pulse.

DR. S. G. WEBBER, of Boston, read a paper

ON LEAD-PARALYSIS,

which was limited to a brief review of the theories of the pathogenesis of lead-paralysis, and secondly, to calling attention to some unusual forms in which lead-poisoning may show itself, simulating more serious lesions. There are two views now most prevalent in regard to the seat of the lesion in lead-paralysis. Some authors consider the central nervous system, the spinal cord and brain, to be the part primarily affected. Another view is that the primary seat of disease is in the nerves. The evidence brought forward by some

observers would seem to be conclusive that the paralysis does not depend upon a central lesion; but objection has been raised that it requires only a very limited lesion in the cord to give rise to the symptoms observed, and it is said that the examinations have not been complete.

Dr. Webber asserted that as yet we have no proof that the higher centres, as the brain or cord, can cause lesion of different parts of the nervous system, as cord or nerve, without a continuous track of degenerated tissue intervening. He thought, however, that in lead-paralysis the mass of evidence derived from pathological anatomy would show that the disease is primarily a neuritis, unless the origin by separate and independent centres is accepted as the true explanation. The fact that many cases of lead-paralysis recover is also in favor of the peripheral rather than the central origin of the disease. Another fact which he considered important in furtherance of this idea was that in every case in which he had questioned the patient there had been pain, more or less severe, or soreness, or a tingling sensation preceding the motor disturbances. Dr. Webber desired to emphasize the peculiarity that in cases of lead-poisoning there were symptoms present resembling those of myelitis. He thought it very important to examine the urine for lead after the administration of iodide of potassium.

DR. PUTNAM remarked that he had seen two cases of lead-paralysis that would never have been considered as such, one resembling lateral sclerosis and the other myelitis exanæmia.

DR. SEGUIN mentioned a case of lead-paralysis in which the symptoms were indentical with poliomyelitis. Lead was found in the urine. This was one of a number of cases in which he would defy any neurologist to make a diagnosis between poliomyelitis and lead-paralysis.

DR. BIRDSALL thought that when we consider how often this disease does not assume a serious form it would not be improbable that changes existed in the cord which were not sufficient to produce impairment. As to the electrical reactions, he had found them present to a very limited extent. The true reversal of the galvanic reaction formula is not as frequent as in myelitis of the anterior horns. He thought that in a certain number of cases there would be found present functional impairment without discoverable lesion of the spinal cord.

DR. V. P. GIBNEY testified to having frequently observed severe pain in poliomyelitis anterior. He had seen many such cases.

DR. HAMMOND remarked that he had long entertained the opinion that the original lesion was central, but much experience had convinced him that the original lesion was in the nerves. The paralysis affects those parts to which the poison is directly applied.

DR. EDES thought that the poison usually entered the system through the lungs or alimentary canal, and that the paralysis showed itself in the muscles which we use the most.

DR. CHARLES K. MILLS, of Philadelphia, read a paper entitled

CLINICAL NOTES ON TWELVE CASES OF BRAIN TUMOR, CHIEFLY WITH REFERENCE TO DIAGNOSIS.

The notes presented were on twelve cases of intracranial tumor in which the clinical examination and the autopsies had been made by Dr. Mills. They were arranged in tabular form, in one column giving a very much condensed clinical history and in another the gross post-mortem appearances and the results of microscopical examination. The facts thus tabulated were then summarized and conclusions drawn.

Headache usually described as present, pain of considerable severity with exacerbations of great violence. In several instances the patients complained of the pain being greatest in the region of the head nearest the seat of the growth. Percussion of the head elicited or intensified pain in the cranial region beneath which the lesion was localized. Vomiting was a symptom in eight of the twelve cases. In a case of tumor of the cerebellum, so located as to cause irritation of the floor of the fourth ventricle, vomiting was persistent. In most of the cases the vomiting was ascribed to irritation of the nerves of the cerebral membranes, the observer agreeing with Ferrier with reference to this point. Vertigo was noticed in ten cases, most marked in two cases of cerebellar tumor. Dr. Mills believed that the general diagnosis of the existence of intracranial tumors could be made with greater certainty than that of any other serious encephalic disease.

DR. PUTNAM inquired if the author of the paper distinguished sharply between choked disk and neuritis.

DR. ROCKWELL mentioned a case of a patient who first suffered from hysterical attacks followed by epileptiform attacks. Headache was present from the beginning, and finally became excruciating in character. The symptoms were such as to lead him to the suspicion of brain tumor, but upon post-mortem examination no such lesion was found, there being present only cloudiness of the arachnoid.

DR. MILLS considered it important in the diagnosis of brain tumor that their character be taken into consideration, that is, whether in their growth tissue was destroyed or the parts pushed aside; whether it was a destructive or pressure lesion.

DR. SEGUIN expressed his pleasure of the views entertained by the author of the paper in regard to localization of brain tumors. Though pain was present in many cases, it had so happened that in most of the well-defined cases of sarcoma that had come under his observation there was no headache. In only one case of cerebral tumor had he observed choked disk. All of his cases of basal tumor had choked disks. In one case of sarcoma within the medulla oblongata, choked disk was present.

DR. MILLS, in reply to the first question asked, would say that, in his opinion, we have, according to the position and character of the tumor, choked disk, either from its mechanical cause, or from the seat of the lesion. He was inclined to favor the so-called lymph-space theory in regard to the production of choked disk.

A CASE OF POST-PARALYTIC CHOREA, WITH REMARKS ON THE TREATMENT OF CHOREIC SYMPTOMS IN GENERAL.

DR. A. D. ROCKWELL, of New York, read a paper with the above title. The case reported was one of long standing. The patient could not carry a glass of water to his mouth without spilling. The speech was somewhat affected, and the right pupil dilated. The treatment in this severe and unpromising case was threefold. First, ether spray to the spine; second, fluid extract of conium internally; third, central galvanization. Under these influences, the boy immediately and steadily improved, and in ten weeks was discharged cured. The reader was inclined to regard the ether spray in these chronic cases as of but little value. Conium he had more confidence in. In regard to the value of electrical applications, Dr. Rockwell's views were the same now as he had expressed a dozen years ago, and, with his added experience, he claimed the same position for it in its relation to this disease as at that time.

DR. MORTON had tried strychnia, arsenic, and electricity in the treatment of chorea, and had become satisfied that any severe treatment would cure. The same good effects which Dr. Rockwell had obtained from the administration of conium, he would expect

from other remedies administered in large doses. He thought the principle of treatment in chorea was one of surprise.

DR. EDES considered the dose of conium as put down in the books absurdly small. He thought no effects could be expected from five-minim doses. He commenced with fifteen-minim doses, which were increased until the physiological effects were produced.

DR. SEGUIN testified to giving conium in teaspoonful doses, using Squibb's fluid extract. He gave from ten to fifteen minims at the first dose.

DR. HAMMOND gave from fifteen- to thirty-minim doses to children five and ten years of age; to adults he had given sixty-minim doses.

DR. ROCKWELL stated that he commenced with five-drop doses, and, if necessary, increased to twenty-five. The cases of chorea recorded by him were of long standing.

DR. GRAEME M. HAMMOND reported

A CASE OF ATHETOSIS CURED BY NERVE-STRETCHING.

The results of nerve-stretching in spinal and cerebral diseases have been, as a rule, very unsatisfactory in nearly all cases where the disease had been traced to any organic change in the central nervous system. Athetosis, according to the post-mortem examinations, comes within this classification, and up to the present time, after almost all kinds of experiments have repeatedly failed, it is universally looked upon as an incurable disease. So far as he was aware, only one operation had been performed for its relief prior to his own. This was done by Dr. W. J. Morton. Dr. W. A. Hammond, on May 23, 1882, sent to the author of the paper his original case of athetosis, first seen in the year 1869, recommending that one or more of the nerves in the arm should be stretched. On May 27th, the median nerve in the middle of the arm at the inner border of the biceps muscle was exposed and slightly stretched, making traction in both an upward and downward direction. Immediately after the operation was performed, and as soon as the patient had recovered from the influence of the anæsthetic, he was able to extend his fingers and to retain them in that position with the greatest ease, and found no difficulty in placing them in any position he desired for as long a time as he wished. The pain in the arm was entirely relieved, but the pain in the ring and middle finger had increased, which was subsequently relieved by static and faradic electricity. The movements and pain in the foot had also ceased, and have not returned up to the date of reading the paper. The frequency and force of the epileptic paroxysms from which the patient suffered, occurring as often as six or seven times a week, have been much reduced, the patient having had but one attack since the operation.

PRESIDENT HAMMOND remarked that the most astonishing feature of the case recorded was that the movement and pain in the foot had ceased, and that the epileptic attacks had been almost abolished.

There being no further discussion, the President stated that there would be no evening session, and in lieu thereof extended a cordial invitation to the members of the Association to a reception at his house.

JUNE 23D.—AFTERNOON SESSION.

The first business was the reading of a paper by DR. V. P. GIBNEY, of New York, on

A CASE OF SWIFT AND ONE OF SLOW COMPRESSION OF THE UPPER CERVICAL CORD FROM DISPLACED ODONTOID PROCESS; WITH SPECIMENS.

The detailed histories of these two very interesting cases were presented together with a description of pathological findings in each. The post-mortem appearances were those usually found in compression myelitis. The principal changes at the point of compression, which involved the white matter, were in those portions which lie next to the posterior horn in the lateral columns extending out into the portions representing the true cross-pyramidal fibres.

DR. MORTON referred to an extremely interesting specimen in the hands of Prof. William Darling, of fracture of the odontoid process and atlas. The canal was reduced to the size of one's little finger. The patient must have survived quite a number of months, as there was perfect union of the fragments. He referred to a case, which he had reported, of dislocation of the fifth cervical vertebra, and which he had reduced by suspending the patient by the neck and chin.

NEW MEMBERS.

The order of business was suspended and the Council reported, through Dr. Seguin, favorably upon and recommended for active membership Dr. C. L. Dana, of New York. The Council reported favorably upon and recommended for associate membership Dr. Mierzenjewski, of St. Petersburg, and Dr. Argent Ollivier, of Paris. These gentlemen were duly elected.

Dr. Edes was requested to take the chair, while DR. WILLIAM A. HAMMOND read his paper on

THE DISEASE OF THE SCYTHIANS—MORBUS FEMINARUM, AND THE ANALOGOUS CONDITIONS.

From a very early period the idea has existed that the male inhabitants of the Caucasus are subject to a peculiar disease, the chief characteristics of which are the loss of the physiological and moral attributes of man, the supervention of impotence, the disappearance of the beard, the atrophy of the penis and testicles, and eventually the implication of the mind to such an extent that the subjects believe themselves to be women, clothe themselves like women and adopt the manner, customs, and occupations of the female sex. A very exhaustive historical sketch of this condition was given by the author of the paper. Dr. Hammond related his observations on the Pueblo Indians, who have among their number examples of an allied condition brought about, intentionally to a very great extent by horseback-riding and masturbation. The case of Edwin Hyde Lord Cornbury, Governor of New York, during the reign of Queen Anne, adduced by Dr. Spitzka, was referred to as a person whose greatest pleasure was to dress himself as a woman, and New York frequently saw its Governor, the Commander of the Colonial troops and a scion of the royal stock, promenading the walls of the little fort in female attire with all the coquetry of a woman, and all the gestures of a courtezan.

DR. F. T. MILES, of Baltimore, exhibited some morbid specimens, and presented a brief history of a

CASE OF HEMORRHAGE INTO THE PONS; DEATH ELEVEN MONTHS AFTER.

There was hemorrhage into the lower part of the pons on the left side, in the median line near the floor of the fourth ventricle, about the position of the acoustic striæ.

DR. C. L. DANA, of New York, read a paper upon

THE MECHANICAL EFFECTS OF NERVE-STRETCHING UPON THE SPINAL CORD.

The spinal cord hangs rather loosely in its canal. It changes its position in the different movements of the trunk. The question in nerve-stretching, therefore, is essentially not whether the cord moves, but whether it is stretched. The spinal cord is quite firmly connected with the dura mater. This is fastened to the

borders of the foramen magnum; below it extends over the nerve roots into the inter-vertebral canals, and is continuous with the nerve sheaths. In pulling on the sciatic nerve the traction comes on the cord and dura together, but chiefly on the latter. Details of experiments upon the human cadaver were given, which proved possibilities of stretching the spinal cord.

The clinical evidence that stretching the sciatic nerve moves the spinal cord is confined chiefly to the cases in which the cutting operation is done. In the great majority of cases of nerve-stretching no evidence of any mechanical violence to the cord is shown. The subject of subcutaneous nerve-stretching was referred to at some length. The evidence that any central change is produced by this means was considered very slight. Cases in which subcutaneous nerve-stretching have been used were cited. From his studies, Dr. Dana formulated the conclusions:

(a.) As regards the cutting operation: (1) traction upon the sciatic nerve of the cadaver in a majority of cases stretches the spinal cord; (2) this stretching is greatest at the lower part, amounting to 2 to 3 mm. with a very powerful pull; (3) the movement is distributed over the yielding cord and only in a minority of cases does it reach the medulla. The medulla then moves very slightly, less than 3 mm.; (4) when the cord is not moved it is due probably to the tight adhesion of the sheath to the nerve and of that to the surrounding tissues, especially in the inter-vertebral canal; (5) traction upon the nerve and sheath, if it reaches the spinal canal, acts chiefly upon the dura; (6) it may be legitimately inferred that what happens in the cadaver occurs also in the living subject.

(b.) As regards subcutaneous nerve-stretching: (1) on the cadaver this is a powerful means of moving the cord; (2) in the living subject it is very doubtful if subcutaneous nerve-stretching affects the cord mechanically at all. The clinical evidence is very meagre; anatomical evidence can not be obtained.

DR. MORTON testified to the carefulness with which the experiments alluded to in the paper were performed. He thought the subcutaneous method would be more generally used than the cutting operation.

DR. HAMMOND had never had any doubts but what the spinal cord was stretched by the subcutaneous method.

DR. R. T. EDES, of Boston, read a paper on so-called

SPINAL CONCUSSION.

The paper was intended to point out the occurrence, in a certain number of cases of somewhat obscure pathology, of a definite and well-known lesion.

He had not been able to find any statement of the frequent occurrence of this lesion, or its symptoms, among the very various and vague sequelæ of spinal concussion. Several cases had occurred in his hospital service, in which the clinical evidence of degeneration of the postero-lateral columns of the cord had been very clear, and where the causation had seemed to be a severe shock to the spinal column, producing no appreciable osseous or ligamentous lesion. Brief histories of four cases, with remarks, were given.

DR. W. J. MORTON, of New York, read a paper on

A YEAR'S PROGRESS IN MEDICAL ELECTRO-THERAPEUTICS BY STATICAL ELECTRICITY.

The author first gave a brief historical sketch. Then followed an enumeration of the progressive steps which had been taken, under the headings: 1. Machines. 2. Electrodes. 3. A new current, introduced by the author. 4. Therapeutic progress.

Under the latter heading, Dr. Morton stated that, as a curative form of treatment, he had more confidence in it than formerly, and thought that static electricity was fully the equal, if not the superior, of galvanism and faradism. He divided the cures by electricity into four classes:

1. Effected, we know not how.
2. Effected by nerve and muscle stimulation.
3. Effected by molecular change, and consequent alteration of nutrition, by direct and local electrization.
4. Effected by reflex and by inhibitory action.

It was in the third class that he believed statical electricity superior to any other form. Dr. Morton then proceeded to specify the ailments which he believed were particularly amenable to static electricity. In hysteria he claimed for it an almost specific influence.

DR. ROCKWELL remarked that his experience with static electricity had, on the whole, been very satisfactory; but he did not think it was possible to consider it as valuable as the other two forms. The dynamic form had a much wider range of usefulness. There were some cases benefited more by static than by dynamic electricity.

DR. DANA had made some use of static electricity within the past six months, and found it very useful. He had interested himself more particularly with its tonic effects, and had found it of great value in neurasthenia and chronic rheumatic articular affections.

DR. AMIDON had never done anything with static electricity, but considered it of little value except as a counter-irritant and slight tonic. It was a decided excitant of the imagination.

DR. G. M. HAMMOND reported beneficial results from the use of static electricity in cases of progressive muscular atrophy.

THE SECRETARY read a letter from Dr. J. J. Mason, of Newport R. I., which was accompanied by photographs of the nuclei in the nerve cells of *Ignana tuberculata*. He had found no gigantic cells in the nucleus oculomotorious, or trochlians.

DR. W. R. BIRDSALL, of New York, read a paper on

THE SLEEPING DISEASE OF AFRICA.

The disease was ushered in by a chill and headache. The patient loses his spirits, is disinclined to do anything, has a staggering gait, suffused eyes, and dilated pupils. This part of the disease is called "ozyone." Ozyone is said to be almost identical with ordinary nasal catarrh. The patient may remain in this condition for from two months to a year before decided somnific symptoms present themselves. When this stage is reached, the patient does little else but sleep and eat. Appetite, even at the best, is remarkable. As soon as patient has finished his meal he immediately retires until the next is ready. During sleep the pupils are normal, as are also the pulse, temperature, and respiration. The duration of this stage, which is called by the natives "*Nkanli y'anty âvinlâ*," is said to be about two months, at the end of which time the patient quietly dies, without convulsions or any other prominent symptom.

DR. SEGUIN reported a case similar to those described in the paper which had come under his notice a few years previous.

A very interesting paper on *Vertebral Cancer and Paraplegia* was read by DR. E. C. SEGUIN.

DR. H. D. SCHMIDT'S (New Orleans) paper on "*A Case of Tumor in the Fourth Ventricle of the Brain, unaccompanied by Special Symptoms*," was read by title.

There being no further business, upon motion, the Association adjourned until the third Wednesday in June, 1883, the place of meeting to be hereafter determined by the Council.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Fourth Annual Congress, held at Boston, June 12, 13, and 14, 1882.

(Specially reported for THE MEDICAL NEWS.)

MONDAY, JUNE 12.—The Fourth Annual Congress of the American Laryngological Association convened at the Hall of the Boston Medical Library Association, the PRESIDENT, DR. FREDERICK J. KNIGHT, in the chair.

THE ADDRESS OF WELCOME

was made by DR. S. W. LANGMAID, of the Committee of Arrangements. In bidding the Fellows welcome to the meeting, he called attention to the position the Association had already attained among medical organizations, and the high character of its published proceedings. The pleasant task of entertaining the Association had been rendered easier by the fact that the Fellows were, in virtue of the abundance of provision upon the programme, hosts as well as guests. The number of papers promised gave evidence of great activity and interest, which was confirmed by the attendance upon the Congress. Owing to the amount of business before the meeting, he would not extend his remarks, but conclude by extending to the Association, on behalf of the Committee of Arrangements, a cordial welcome to Boston.

DR. FREDERICK J. KNIGHT read the

PRESIDENT'S ANNUAL ADDRESS,

in which he discussed the position of laryngology among specialties, recommended more attention to the subject by medical schools; considered the details of clinical instruction and its importance as part of the under-graduate course in colleges. The essential necessity of higher medical education was dwelt upon, and the cultivation of a more healthy public sentiment was considered a part of the physician's duty, and for which he should lend his influence. The need of having our medical teachers' incomes entirely independent of the size of their classes was dwelt upon, and the endowment of competent colleges recommended.

The change of place of meeting from Niagara to Boston was explained; and the advantages of holding meetings in large cities, where hospitals and dispensaries exist, over watering places were pointed out. In conclusion he recommended that all future meetings should be held on the third Monday of June, and at a distance not greater than one night's journey from New York City, inasmuch as a large number of the Fellows live in that city.

PROF. ELSBERG read his paper on *Paralysis of the Laryngeal Muscles*, which he illustrated by diagrams demonstrating the results of the forms of paralysis resulting from paralysis of each of the five muscles of the larynx. These laryngeal images also showed different degrees of paralysis, or paralysis of only a part of a muscle, both uni- and bi-lateral. The complication of spasm with paralysis was also discussed, and the resulting distortion of the glottis explained. Catherization was urged to be sometimes a valuable substitute for tracheotomy. The paper was discussed by Drs. Bosworth, Seiler, Roe, Hartman, and Morgan.

DR. CARL SEILER read a paper forwarded by DR. W. C. GLASGOW, of St. Louis, who was unable to attend, entitled *Laryngeal Asthma*, which called attention to bronchial spasm due to laryngeal disease, and cited a number of cases in illustration. The attacks of asthma produced by reflex irritation in the bronchi are well recognized, but when pathological changes cannot be demonstrated in the lungs, but are found in the larynx, and when local treatment of the latter organ removes the diseases, it is evidence that laryngeal disease must be classed as one of the causes of reflex bronchial spasm, and a laryngoscopic examination may guide a treatment that would lead to cure in cases otherwise intractable.

DR. ROBINSON objected to the elevation of an accident of a disease into a special form of disease. Asthma is due to many causes, a peculiar neurotic element present, and brought on by irritation of various parts of the air passages other than the larynx. Discussed also by Drs. Jarvis and Seiler.

Dr. J. R. FRENCH, of Brooklyn, exhibited some photographs of the interior of the larynx taken by means of the mirror, and explained the process of photographing the living larynx.

The Association went into business session at 12.30 P. M., for the election of Fellows and nomination for officers.

Drs. Langmaid, Shurley, and Lincoln were appointed as a *Nominating Committee*.

Drs. Elsberg and Morgan, *Auditing Committee*.

Drs. Seiler and Bosworth were appointed *Tellers*.

The following *New Fellows* were declared to be elected on recommendation of the Council: Drs. S. H. Chapman, of New Haven, Ct.; Thos. Amory De Blois, of Boston; F. H. Hooper, of Boston; Frank L. Ives, of New York; and D. N. Rankin, of Alleghany, Pa.

AFTERNOON SESSION.—The Association met again at three o'clock, when DR. D. BRYSON DELAVAN read an interesting essay *On the Question of Hypertrophy of the Osseous Structure of the Turbinated Bones, Practically Considered*, in which the occurrence of the enlargement of the middle turbinated bone particularly, as a cause of deflection of the septum, and the treatment of the resulting stenosis by removal of part of the hypertrophied bony structure, and subsequent straightening of the canal was recommended. A general discussion followed.

DR. FRANK H. BOSWORTH, by appointment, opened the discussion upon *Ozæna, its Pathology and Treatment*, by pointing out the different causes of offensive secretions from the nose, which he classed under four heads, (1.) Syphilitic ulceration, (2.) Scrofulous ulceration, (3.) Foreign body with retained secretion, (4) Rhinitis in which there is adherent crusts. He advocated the disuse of the word ozœna as unscientific. In the treatment strict cleanliness, removal of obstructions to outlet of secretions, and stimulating applications in cases of rhinitis, were recommended. In the first two forms, constitutional treatment is also required.

An interesting discussion on the paper took place, during which DR. THOMAS F. RUMBOLD took occasion to exhibit his catheter spray douche for cleansing the nares.

In the evening the Fellows of the Association attended a reception at the house of the President, Dr. F. J. Knight, where they were invited to meet the Faculty of Harvard University, the Members of the Hospital Staffs of the Massachusetts General and City Hospitals, and some members of the Massachusetts State Medical Society, then holding its one hundred and first annual session in this city.

TUESDAY, JUNE 13.—At the beginning of the morning session an hour was devoted to the

BUSINESS MEETING.

The Secretary presented the minutes of the last annual meeting which had been already published and distributed, and also of two meetings of the Judicial Council; the Treasurer's report, exhibiting a balance of $117.51, was audited by Drs. Elsberg and Morgan, and found correct.

The Nominating Committee presented the following report:

Place of Meeting, New York City on the third Monday in May, 1883.

OFFICERS.

President, G. M. LEFFERTS, M.D., of New York.

Vice-Presidents, DR. CARL SEILER, of Philadelphia; E. F. INGALS, of Chicago.

Secretary and Treasurer, DR. D. B. DELAVAN, of New York.

Librarian, DR. F. H. BOSWORTH.

Council, MORRIS J. ASCH.

Miscellaneous Business.—The PUBLICATION COMMITTEE reported the publication of the last volume of Transactions, and announced that the first volume had also been completed, and the bill was ordered to be paid.

Dr. Knight presented a provisional report of the Committee on Nomenclature, on behalf of Dr. J. Solis Cohen. On motion, copies were distributed for consideration by the Fellows for another year.

The Librarian, Dr. Bosworth, announced a number of additions to the library.

A report from the delegates to the International Medical Congress, Dr. Cohen, chairman, was read and filed.

Dr. L. Elsberg, of a committee appointed for the purpose, read an obituary notice of Dr. F. H. Davis, which was accepted, and ordered to be placed upon the minutes.

Dr. Bosworth representing the committee on diplomas for foreign members, presented a draught which was accepted, and the committee authorized to have the plate engraved at once, and also in connection with the judicial council to prepare a suitable seal to be affixed to such diplomas.

The action of the Council in changing the place of meeting from Niagara Falls to Boston, was, after considerable discussion, approved.

Dr. Elsberg, on behalf of the publishers of the *Archives of Laryngology*, offered to publish the transactions on the same terms as before, which was, on motion, accepted.

It was resolved that discussion should be postponed until the three papers on the programme for the morning session were read.

E. FLETCHER INGALS, M.D., of Chicago, read a paper on *Deflection of the Septum Narium*.

DR. WM. C. JARVIS, of New York, read a paper on

A NEW OPERATION FOR THE REMOVAL OF THE DEVIATED SEPTUM IN NASAL CATARRH.

The operation was in many respects similar to the now popular one devised by him for the removal of turbinated hypertrophies. He referred to Dr. W. Adams as one of the first surgeons to successfully overcome by an ingenious operation distortion of the nasal septum. The various septum perforators and nasal fracture forceps, now in general use, were shown to be the result of the stimulus received from the invention of Adams' well-known instrument.

Although marked deformities of the nose had been remedied by these operations, they were, nevertheless, open to objection. Slight but pathologically important deviations of the triangular cartilage of the septum, were not remediable by Adams' operation, but could be easily remedied by his own. He strongly condemned the practice of perforating the septum to obtain a delusive bilateral nasal respiration, by creating an oblique air-current from the open nostril. Attention was directed to the life-long discomfort caused by the collection and inspissation of mucus about the edges of these unnatural openings, a condition observed in patients having ulcerative perforation of the septum narium. He divided deviations of the nasal septum into three varieties, osseous, cartilaginous, and hypertrophic. These three varieties occurred in two forms, localized and general. The first form included such conditions as dislocation of the cartilage of the columna, cartilaginous spurs and ridges in the triangular cartilage, and hypertrophy of the mucous membrane over the vomer, ethmoid, columna nasi, and osseous spurs. The second division included extensive deflection of the cartilaginous and osseous septum.

He demonstrated the rare occurrence of osseous spurs mentioned by some authors as of such common occurrence, by reference to Professor Bosworth's large throat clinic, at Bellevue Hospital. Three different instruments were employed by him in operating, namely: A wire écraseur, transfixion needle, and septum scissors. The écraseur was identical with the one already presented by him, and so familiar to the medical profession. The tissue forming the most prominent part of the deviated septum was pierced at its base by means of the transfixion needle, and the wire loop carried over the point projecting into the nostril. On drawing the wire home all the cartilaginous or hypertrophied tissue outside the needle's shaft was severed from its connection with the nasal septum. The needle acted somewhat like a director. The slow traction employed to accomplish a bloodless operation, also insured the smallest amount of pain.

Localized cartilaginous projections could be removed at a single sitting. Marked general deviations required several operations. The fine steel wire employed would sever the densest cartilage without fracturing. Small ridges of cartilage were seized and snipped off by a peculiar beaked scissors having an angular shank. Its shape facilitated inspection of the part while operating. Sufficient space could be obtained in partly osseous deviations of the septum by removing the soft tissues to restore nasal respiration and relieve contact. An ample opening could be obtained in a nostril rendered imperforate by a combined osseous and cartilaginous deviation by simply excising the soft septum tissues and portions of the turbinated structure lying opposite. Imperforate nostrils were perforated by employing a needle having its point almost at a right angle with the shaft. Successive portions of the obstruction were transfixed and snared off until a free opening was established.

Attention was called to the part played by the hypertrophied mucous membrane overlying the septum. In nasal catarrh many of the so-called cases of deviated septum were really hypertrophies of the overlying mucous membrane, produced by the irritation of tumefied or hypertrophied turbinated tissues lying opposite. These obstructions not only impeded respiration, but acted as irritants, and, by distorting the nasal gutter, prevented the easy efflux of the nasal mucus; the mucus thus retained, by becoming inspissated, contributed to the stenosis and acted as an additional irritant. The recognized fact that marked distortion of the nasal septum was, as a rule, unaccompanied with external deformity, was favorable to his method of operating.

A clean surface was essential to success in restoring the internal symmetry of a distorted nostril. One drop of blood was sometimes sufficient to veil the field of operation and prevent immediate progress. Hence the failure of cutting instruments, whose intelligent use was dependent upon careful ocular inspection. As the manipulation of the transfixion needle and placing of the wire loop was attended by no hemorrhage, a clear view and precise movement were invariably secured, and, as might be expected, the results were definite, satisfactory, and sure.

Specimens of septum tissues removed by his method were exhibited, and his remarks were well illustrated by drawings enlarged from careful sketches. No exceptions were taken to his claims.

E. L. SHURLEY, M.D., of Detroit, read a paper on

Lupoid Ulceration of the Nasal Septum. In the discussion the pathology of nasal stenosis due to deviated septum was considered, and the several operations for its correction compared. Preference appeared to be given to the method of Dr. Jarvis with the wire loop; although Dr. Delavan approved highly the method of Dr. Harrison Allen, contained in an article in the *American Journal of the Medical Sciences* for January, 1880. With regard to Dr. Shurley's case, there seemed to be more than a suspicion that it was due to syphilis, and similar cases were reported in which only a negative history could be obtained.

At the AFTERNOON SESSION, DR. BEVERLEY ROBINSON, of New York, read a communication on *Impaired Cardiac Power as an Efficient Cause of Congestive Affections of the Throat*, in which a central cause for some chronic throat disorders was pointed out, and the importance of general treatment made manifest.

A paper on

PHARYNGEAL IRRITATION,

by HARRISON ALLEN, M.D., of Philadelphia, was read, in the author's absence, by the Secretary.

The object of this paper was to invite attention to the relations existing between the various movements of the pharynx and the irritable conditions of the passage as recognized in practice. The subject was divided into three portions—the irritation of the naso-pharynx, of the oro-pharynx, and of the laryngo-pharynx. The causes of disturbed action of the *naso-pharynx* reside, it was thought, in the forced elevation of the vellum, due either to over-action of the levator palati muscles, or paresis of the depressors of the velum. The action could with ease be studied through the nose in persons having capacious chambers. The mechanism is further modified by the presence of the naso-pharyngeal tonsil. The unnatural condition of the parts in the *oro-pharynx* are numerous. One of the most common is want of tonicity in the muscles on one side of the passage. This results in asymmetry, an effect chiefly seen in the palato-pharyngeal folds and on the sides of the uvula. The weakened or paretic palato-pharyngeus muscle assumes a nearly vertical position, and in the act of gagging moves scarcely at all toward the median line. When all the structures on one side of the oro-pharynx are atonic, the tonsils sag inward; and if large infra-tonsilar glands are present, persistent irritation of the parts ensue. The paresis of the sequelæ of diphtheria is, in the author's judgment, always bilateral, while that of syphilitic angina is always unilateral. The irritable states of the *laryngo-pharynx* may be excited by comparatively trifling causes—a result most likely due to the high degree of sensibility normally present here. The inferior constrictor muscle might well be called the guardian of the laryngeal orifice, and on the slightest provocation it enters into active constriction of the passage, and aids in the act by which the rima laryngis is closed. If the smallest extraneous particle lie in the region of the laryngo-pharynx —in the pyriform sinus or adjacent parts—the irritation is extreme. Similar troubles may arise from an engorged follicle or closed gland.

In conclusion, it was thought that a careful study of all the causes entering into the disturbance of mechanism was required before pharyngeal irritation could be with certainty removed.

THE PRESIDENT exhibited a case of *Aphonia Spastica* in a middle-aged man, otherwise apparently in good health. The affection came on rather suddenly nearly a year before without assigned cause; he appeared to be getting better. Treatment by galvanization was recommended, with vocal gymnastics, and general nerve tonics.

DR. WM. H. DALY, of Pittsburg, read an interesting paper on *Catarrh Involving the Antrum of Highmore, and its Treatment*, in which the details of two cases were given. The treatment was the same as for abscess, perforation through the socket of the second molar tooth, extracted for the purpose. The teeth were healthy; the disease apparently began in the nasal chamber as a catarrh. The odor of the retained secretion was very offensive.

DR. CARL SEILER opened the discussion

ON THE NATURE AND FORMS OF LARYNGEAL ULCER, SPECIALLY THE SO-CALLED CATARRHAL ULCER.

He said that he recognized the importance of the subject of deciding whether true ulceration of the mucous membrane was always due to a specific cause, or whether there was a kind of shallow ulceration met with in ordinary catarrhal inflammation.

He said that abrasions of the mucous membrane, which were nothing but localized loss of epithelium, occurred frequently in those portions of the larynx which were most exposed to friction, such as the inter-arytenoid space, the edge of the epiglottis, etc. These abrasions were by many regarded as ulcerations, but they were never covered with pus.

Occasionally, shallow round or lenticular ulcerations, covered with a white pus-like secretion and penetrating through the epithelial layer and the basement membrane into the sub-mucous tissue, were seen in catarrhal inflammations, in which no specific cause existed. These were the so-called catarrhal ulcers.

Thus, in the syphilitic laryngitis, two kinds of ulcers were observed—the shallow, and the deep and destructive kind. The peculiarity of the syphilitic sores was that they are always bilateral, and more or less symmetrical on either side, that their edges are raised and surrounded by an areola of deep inflammation, and that they are covered with a thick creamy pus. The deep syphilitic ulcers were always due to a breaking down of gummata in the mucous membrane, and they appear very rapidly—destroying a great deal of tissue in a short time.

The phthisical sore, on the other hand, was usually unilateral, non-symmetrical, appearing often on that side of the larynx corresponding with the side on which the greatest amount of lung implication is noticed. They are usually round, and tend to run into each other; their edges are not raised above the level of the mucous membrane, which is pale, even close up to the ulcer. They are covered with a grayish pus, and are rather slow in their development and progress. They are caused by the breaking down of cheesy deposits in the mucous membrane. The ulcerations of lupus closely resemble those of syphilis, so that it is often difficult to make a differential diagnosis.

Carcinoma, epithelioma, and leprosy give rise to ulceration of the mucous membrane of the larynx, and considerable destruction of tissue; having, however, no distinctive features, being easily recognized by other symptoms and appearances characteristic of the disease giving rise to them.

The discussion was continued by nearly all present; no agreement was obtained upon the pathology of catarrhal ulcer.

WEDNESDAY, JUNE 14.—The Secretary, for DR. CLINTON WAGNER, of New York, read a descriptive paper on a case of *Ossification of the Right Arytenoid Cartilage. Separation and Expulsion following Thyrotomy for the Removal of a Papilloma*, and the specimen was passed around for examination. Dr. Seiler reported two cases of a similar character, and attributed the condition to a chronic sore throat in a syphilitic subject.

S. W. LANGMAID, of Boston, made a few introductory remarks upon *The Singing Voice, its Physiology, Pathology, and Treatment*, which led to general discus-

sion upon the influence exerted by disorders of the upper air-passages upon the singing voice, and the propriety of interference.

J. O. ROE, M.D., of Rochester, opened discussion on *The Utility or Non-utility of Local Applications in Chronic Catarrhal Laryngitis*, in which he strongly recommended local applications by means of medicated sprays, or with the cotton-holder, using astringents and stimulants.

DR. DEBLOIS exhibited a pair of laryngeal forceps of original design, and also an instrument for applying the wire snare in operations upon the nose.

DR. SHURLEY exhibited his galvano-caustic knife for operations in the nasal chambers; and Dr. Rumbold explained his spray-douche, and showed its action.

The Society went into an election for officers, and the nominees already named were elected. DR. LEFFERTS, the President-elect, was inducted into office, and made a brief acknowledgment of the honor conferred.

THE AMERICAN MEDICAL ASSOCIATION.

Thirty-third Annual Meeting, held at St. Paul, June 6, 7, 8, and 9, 1882.

(Specially reported for THE MEDICAL NEWS.)

SECTION ON SURGERY AND ANATOMY.

TUESDAY, JUNE 6.—The Section met at 3 P. M. Owing to the death of the Chairman-elect, Dr. J. C. Hayes, of Iowa, the Secretary, DR. WM. BYRD, of Illinois, was elected Chairman, and DR. HUGH MCCALL, of Michigan, Secretary.

DR. CARL SEILER, of Philadelphia, made some

REMARKS ON THE USES OF ELECTRICITY IN SURGERY,

in which he gave a description of a galvano-cautery battery, devised by himself, and of an electric motor originally used for running sewing machines, but admirably adapted for a surgical or dental engine. The galvano-cautery, he said, had not been used more often because the batteries in the market are either too large and cumbersome or else so complicated as to easily get out of order, and also because the current could not be graduated, so that any desired heat of the knife could be obtained during the operation and without interrupting the current. He had found that the dull red heat of the knife was very painful both to the skin and mucous membrane, but an incision made was not followed by bleeding; a bright cherry heat was painful to the skin, but not to the mucous membrane, and an incision with the knife at this temperature was also bloodless; the knife at a white heat was painless both to mucous membrane and skin, but that it cut like cold steel and the hemorrhage was very copious. He therefore always used the cherry heat for operations in the nasal cavity. The gradation of the current and heat was obtained by having the zinc-plates of the battery suspended above the cups containing the carbons and fluid in such a manner that they can be immersed to any desired depth by means of a foot-treadle, and thus a greater or less amount of current was generated. In order to overcome polarization of the battery, which prevents continuous action, the battery has two cups and the zinc-plates are hung on a bar balanced in the centre above the cells. Thus if one series of plates is immersed in the fluid, the other is exposed to the air, which removes the hydrogen globules adhering to the zinc surface. By a rocking motion of the treadle the plates are immersed alternately, thus always exposing a fresh surface to the acid and keeping up the current for any length of time.

The electric motor he had used for some time past, and had found it far superior to the dental engine in operations for the removal of exostoses from the septum, or other bony obstructions in the nose, and also for freshening the surface of indolent ulcerations with the corundum cone. The motor is the smallest ever made, weighing only one-half pound, but nevertheless it had more power than the dental engine, and its revolutions can be regulated from 100 to 60,000 per minute, by the battery belonging to it. Another very great advantage of the instrument is the freedom from motion of the hand holding the hand-piece, which, when the dental engine is used, is very perceptible, being communicated from the foot working the treadle of the fly-wheel to the whole body, and materially interferes with the delicacy of touch necessary in many of the operations about the mouth and nares, for which the rapidly revolving drill or burr is so admirably adapted. The motor is suspended from the ceiling by a movable arm, over which cords run carrying the counter-weights. In this way the motor can be placed in any position desirable, and the hand of the operator is relieved from all weight except that of the hand-piece holding the drill. There is but very little noise connected with the revolutions of the motor, and he had not found that patients complained of the noise. Another advantage was that the cost of the motor, and the battery belonging to it, was considerably less than that of a good dental engine.

DR. DAVID PRINCE, of Illinois, said that he had used the thermo-cautery recently in many cases where he had formerly used the galvano-cautery, and was well pleased with it.

GASTROTOMY FOR THE RELIEF OF INTUSSUSCEPTION.

DR. WM. HILL, of Bloomington, Ill., presented a report of a case of ileo-cæcal invagination, operated on August 23, 1855, with recovery.

DR. PECK, of Iowa, referred to a case of intestinal obstruction treated by large injections, without relief; finally, upon abdominal section, the appendix vermiformis was found adherent to the vertebral column, and a loop of the bowel constricted by it. He tied the appendix with a double ligature, cleaned it thoroughly, and, relieving the obstruction, closed the abdominal wound. The patient is still living and improving.

DR. HALLEY, of Kansas City, referred to a case in which he proposed abdominal section, but was refused. The patient died, and at the autopsy the obstruction was found to be caused by a bony growth. He also referred to a case in which he had operated, where the obstruction was caused by a complete valvulus of the splenic section of the colon. The patient died. Still he believed the operation a justifiable one, and, in order to obtain good results, that it should be performed early.

DR. LEE, of Chicago, referred to the proper time to operate in these cases, and stated that too much reliance could not be placed upon the temperature and condition of the pulse, and that an operation to be successful should be done early.

DR. PRINCE, of Illinois, referred to the use of Wales's bougie, which could be introduced quite a distance, and the use of warm-water injections through it. If this did not succeed, then he advised an operation, but did not favor the operation in the early history of these cases, unless the symptoms were urgent.

DR. PARKS, of Illinois, spoke of three reasons why the operation was not more frequently resorted to.

1. Fear of meddling with the peritoneum.
2. Difficulty of diagnosis of the position of the obstruction.
3. The difficulty of determining the proper time to operate.

With our present means there should be no hesitation about the first.

The second would always be a difficult matter to overcome.

As to the third, the serious time was previous to the sixth day. In obstruction caused by feculent accumulation the best treatment in his experience was large doses of opium.

DR. HILL advocated the early operation.

THE CHAIRMAN thought that injections of water were of no value where the obstruction was not in the colon and strongly advocated the early operation.

DR. C. C. F. GAY, of Buffalo, read a paper on

ANCHYLOSIS OF THE HIP IN THE STRAIGHT POSITION TREATED BY FRACTURE.

The case promised well, but left the hospital and final result was not known.

DR. HILL reported a case where fracture occurred in an attempt to break up fibrous anchylosis followed by caries, necessitating resection, and recommended non-interference where the deformity was not too great.

DR. D. PRINCE recommended the breaking up of anchylosis where the tendons are not much contracted, and thought the breaking up of adhesions of the hip-joint following diseases of that joint very dangerous, and that they should be left alone or only the tendons cut to allow if possible the restoration of some motion.

DR. POORE, of New York, thought it dangerous to fracture in cases of anchylosis, but recommended osteotomy.

DR. OWEN, of Illinois, agreed with Dr. Poore that the day for fracture of the femur in anchylosis is past, and that there is neither shock nor danger from osteotomy as compared to the old operation of fracture.

DR. ANDREWS, of Chicago, reported a case of death from shock, where osteotomy of the neck of the femur had been performed.

DR. MCCANN, of Pennsylvania, advocated the division of resisting tendons before operating.

DR. LEE, of Chicago, spoke of the difficulty in getting a joint, and stated, if the object were to correct the deformity, that osteotomy would be preferable on account of the absence of shock, while if a joint was desired, fracture would be more likely to succeed.

DR. RANSOHOFF, of Ohio, said that in thirty cases seen by him only one case of death occurred, and that not from shock, but from gangrene and caries.

DR. HALLEY, of Kansas City, had performed osteotomy twice with good joint in one case and no shock whatever.

DR. GAY, in closing the discussion, referred to the danger of breaking the saw in the operation of osteotomy.

A paper by DR. J. H. WARREN, of Boston, entitled

A NEW ANATOMICAL TRUSS IN THE TREATMENT OF RUPTURE,

was next read. It contained an account of the treatment for the radical cure of hernia, by injection into the hernial rings after the method used by Heaton, and the application of a truss designed by the author to be worn afterwards till adhesions became sufficiently strong to prevent the recurrence of hernia.

DR. ANDREWS, of Chicago, said that Dr. Pancoast was the first to use subcutaneous injection for the cure of hernia. That there is little or no risk in Heaton's operation for inguinal hernia, and that a certain proportion will be cured, but that in femoral hernia it was dangerous.

DR. PHILLIPS, of Ohio, used a double canula, the inner one finished with a dome point, and he used Dr. Heaton's formula and believed the operation to be a good one.

WEDNESDAY, JUNE 7.

A sub-committee, consisting of Drs. B. A. Watson, of New Jersey, Peak, of Iowa, and Carpenter, of New York, was appointed, to which all papers read in the Section were referred.

A description of a

SPLINT FOR TREATMENT OF FRACTURE OF THE ELBOW,

by DR. J. F. STEWART, of Illinois, was read by the Chairman.

DR. GEORGE W. NESBITT, of Sycamore, Illinois, read a paper on

UNUNITED FRACTURE OF THE FEMUR TREATED BY EXERCISE.

He reported a case of ununited fracture treated by rubbing the ends of the bones together, drilling, etc.; then put on a plaster-of-Paris splint, and the patient put on his feet; union resulted. This case was first treated by rest in bed, with long splints.

DR. KELLER, of Hot Springs, Arkansas, said that this case showed the result of bad treatment in the first place, and thought that no fracture of the long bones should be treated but by adjustment and fixation with some fixed dressing fitted and moulded to the parts, and that movable splints should not be used.

DR. J. W. CARPENTER, of Kansas, referred to a case of ununited fracture of the femur which was referred to him. Plaster dressing was applied, and in a short time union was completed. He thought the reason why plaster-of-Paris splints were not more frequently applied, was because physicians did not understand how to apply them properly.

DR. J. L. ATLEE, of Pennsylvania, referred to the advantage of using flannel next the skin in fixed dressings.

DR. GARCELON, of Maine, spoke of a case of non-union of ten or twelve weeks' standing. The patient ultimately brought suit for malpractice, and while working up the case improvised a leather splint, which he bound firmly to the limb and limped about. When the case came to trial union was found complete, thus showing that plaster alone was not necessary, but some kind of fixed dressing.

DR. FORBES, of Ohio, opposed the application of plaster primarily, and thought that the swelling should be allowed to subside before applying any fixed dressing.

DR. FLANNER, of Michigan, had been accustomed to use the legs of flannel drawers in the application of the plaster bandage, and stated that some cases would not unite with any kind of dressing.

DR. KELLER, said he did not wait for swelling to subside, but puts on the permanent dressing at once, and in case of danger from swelling uses enough cotton batting to compensate for the swelling. In compound fractures he uses the Bavarian splint.

DR. L. A. SAYRE, of New York, spoke of the desirability of applying the fixed plaster splint at once, and detailed his method of applying the same, stating that he had never seen any evil resulting when properly applied. Woollen should be placed next the skin, as it absorbs the secretions, and is much more comfortable. Watch the case carefully, and if swelling occurs, cut your dressing. In compound fractures dress as in simple, only cut windows opposite the wounds.

DR. GARCELON asked if swelling had occurred, for instance, if you could not see your patient for eighteen or twenty hours, would you apply your fixed dressing or wait for the swelling to subside?

DR. SAYRE, would wait till swelling had subsided and then apply the plaster, but should put it up in fixed dressing at once if he could see it early and thus prevent a great deal of swelling.

DR. MCLEAN, of Ann Arbor, asked does non-union occur in your practice where fixed dressings are used?

DR. SAYRE replied that no cases of non-union have

occurred in his practice, nor had he seen a case where the splint was properly applied. The more they go about the better it is for them.

DR. MCLEAN stated that from the tenor of the discussion outsiders might get the idea that non-union would not occur if proper dressings were employed, and thought that it would be a pity if such an impression went out from this Section, for non-union takes place sometimes with all the care that can be bestowed, and with any kind of dressing that can be applied, and referred to a case in which he was called as a witness, and he had been censured by some of his brethren for giving an opinion in court on the following hypothetical case: Suppose a fracture of the humerus treated by short board splints applied to the arm by tapes, the shoulder and elbow allowed to move freely, would that be good surgery, and asked Dr. Sayre's opinion on that case.

DR. SAYRE said he would consider it a case of maltreatment. He stated that a great many things might interfere with union, the constitution of the patient having a good deal to do with the result to be obtained, and that we cannot guarantee union in any case positively.

DR. FREEMAN, of Illinois stated that the contact of the bones, either end to end or side to side, seemed necessary to union.

THURSDAY, JUNE 8.

The first paper was entitled

CONTRIBUTIONS TO THE SURGERY OF THE LIVER,

by DR. JOSEPH RANSOHOFF, of Ohio, the first being a case of *cholelithectomy*, in which he had opened the gall-bladder and removed calculi. The walls of the gall-bladder were stitched to the abdominal wall, then opened, and the obstructing stones removed. The chief point on which he dwelt was the positive diagnosis of stone by a fine aspirating needle touching the stone before operation, and claimed that this was the first case in which that had been done, as far as he knew. The second part was a history of a case of hepatic abscess, where repeated aspiration having failed to cure, an opening was made through the abdominal wall with the thermo-cautery, the wall of the abscess stitched to the abdominal wall, and an opening, through one-half inch of liver tissue, made into the cavity of the abscess, without the loss of one drop of blood. The use of warm water, for six or eight hours a day, to cleanse the cavity, without any carbolic acid, was continued, and the inspection of the interior of the cavity, by the use of the laryngoscopic mirror, revealed large sloughs, which were removed by forceps. The patient finally made a good recovery.

DR. ANDREWS, of Chicago, read a paper on

THE PROPER POINTS FOR INCISION IN THE DRAINAGE OF SUPPURATING KNEE-JOINTS,

referring to eight points of incision.

EXCISION OF THE INTESTINAL CANAL WHERE COVERED WITH PERITONEUM.

This was the Address of the Chairman of the Section, DR. WM. A. BYRD, of Illinois, and was referred to the Section for discussion.

Dr. Byrd gave a short *résumé* of the history of excisions of the intestinal canal, and referred to the good results in operation, and the freedom from danger with proper care in diet, etc. The chief interest centred in the use of a flap of skin for the closure of an artificial anus, after the septum or spur between had been broken down. He also advocated the cutting away at the time of primary operation of a portion of the intestines obliquely, and so unite them as to prevent the formation of a spur between the two ends, and the more ready closure of the artificial anus afterwards. Dr. Byrd, in conclusion, presented the following propositions:

1. Any portion of the alimentary canal may be safely excised, and stricture, cancer, perforating ulcer, and gangrene demand that it should be done.

2. The method heretofore adopted of suturing the divided ends of the bowel is dangerous, because tympanites, by pressing upon the heart and lungs, interferes with the vital processes in a patient already worn down by disease and shock, and by distention causes traction upon the sutures in such degree as in many instances to cause their giving way, which is followed by fecal extravasation, peritonitis, and death.

3. These dangers are to a great extent obviated by making an artificial anus, permitting the escape of the gases as they form.

4. Artificial anus is easily cured by a plastic operation, devised by himself.

5. If that portion of the bowel which constitutes the eperon be cut away at the time of the first operation, no future operation will be found necessary, as the artificial anus will close spontaneously by cicatricial contraction.

6. The successful cases reported in the paper prove the propositions to be true.

DR. RANSOHOFF referred to the method of Dr. Byrd as the application of an old operation in other localities of the body to a new use, being the method of closing exstrophy of the bladder, and for repair of the lower wall of the urethra, converting skin into mucous membrane. In the second place, he thought it dangerous to remove so much of the blood-supply of the bowel as would be necessary by the excision of the oblique section of the bowel, on account of the great part of the mesentery which would be removed in the operation, increasing danger of death of the intestines.

DR. PREWITT, of Missouri, agreed with Dr. Ransohoff in the danger of the operation which was recommended by Dr. Byrd. He thought that after the surgeon has opened the bowel and given free exit to the feces, he has done enough, as any attempt to remove nature's adhesions may only result in harm to the patient.

DR. BYRD said that he was glad that the let-alone treatment was brought forward, but was also glad he had not followed it, as in eighteen cases of strangulated hernia he had only lost three.

Dr. Prewitt said that he did not advocate the let-alone treatment, only not to break up the adhesions which nature formed for the safety of the patient.

DR. GARCELON, of Maine, asked, in cases of strangulated hernia where the bowel is dead, whether he would take away all the dead part and dissect up the bowel and bring the parts together.

DR. BYRD said unless the position was good and the opening close together, he would dissect up the bowel and complete the operation as he had described.

DR. E. M. MOORE, of Rochester, said he thought it was not well to interfere with nature's efforts at repair, and he recommended leaving the adhesions alone—even in femoral hernia, where the position is not so favorable for an artificial anus after the stricture of the bowel has been removed. He wished to enter a protest against the position taken by the Chairman.

The Section then adjourned.

CORRESPONDENCE.

WATER IN THE STOMACH AND LUNGS IN DEATH FROM DROWNING.

To the Editor of THE MEDICAL NEWS.

SIR: I desire through your columns to correct an error, in connection with the report in last week's daily

papers, of an autopsy made by myself and Dr. Cadwallader, acting Coroner's physician, of the body of a woman supposed to have been drowned in the river Delaware.

The reporters of the case, in their desire to dress it up as effectively as possible, have put *their own* interpretation upon the results of this autopsy, whilst making it appear to the reader that they are expressing *my* views; and inasmuch as these inferences do not seem to me to be fully warranted from a single, isolated case, and especially where there was no absolute proof that the death was *caused* by drowning, I do not wish to be considered as endorsing the rather premature conclusions attributed to me by these well-meaning, but over-zealous reporters.

Certainly, the leading authorities all teach that the presence of water in the lungs and stomach (especially the former) constitutes the most reliable evidence of death resulting from drowning, and the entire absence of water from both the lungs and stomach in the autopsy referred to was certainly a very noticeable feature, *provided* we were certain that the death was caused by drowning, which we were not, as the case was one of a multitude of similar ones, on which the Coroner's jury pronounces the stereotyped verdict of "found drowned." It is evidently a very important point for the legal physicians to decide—what are the positive, unequivocal signs of death by drowning? It may, in truth, become the *vital* point to establish in a capital case, as would appear to be the fact in the now pending "Malley Case." But in order to establish an important scientific truth we should not be content with merely one or two experiments, but these should be repeated under varied circumstances, until every doubt is removed.

I may be permitted to say, in this connection, that I am now engaged in investigating the post-mortem appearances in cases of death from drowning, as a legitimate object of inquiry connected with medical jurisprudence; but I had not the remotest idea that the results of the late autopsy, which was made in strict privacy, and which was only part of a series of observations of a similar character, would have fallen into the hands of the ubiquitous "reporter," and been made to assume a coloring not designed by myself.

Very respectfully yours,

JOHN J. REESE, M.D.

316 S. TWENTY-FIRST ST., June 26, 1882.

NEWS ITEMS.

BROOKLYN.

(*From our Special Correspondent.*)

LONG ISLAND COLLEGE HOSPITAL.—Some changes are about to be made in the faculty of this school. The Chair of Surgery has been divided between Profs. Jarvis S. Wight and J. D. Rushmore, giving the branch of didactic surgery to one and clinical surgery to the other. Dr. B. F. Westbrook has resigned the position of Lecturer on Anatomy, and Dr. Tetamore has been appointed Curator.

THE COUNTY BOARD OF PHARMACY.—At a recent meeting of the Medical Society of King's County, Drs. Audley Haslett and J. D. Rushmore were chosen the Medical Members of the County Board of Pharmacy. They are their own successors, and are elected to serve for a term of two years, from July 24.

THE ASSASSIN OF DR. SCHENCK.—Francis G. Thomas, the would-be assassin of Dr. Schenck, whose narrow escape from death was reported in the "NEWS" of June 17, attempted to commit suicide at the jail on the night of the 18th ultimo. When discovered he was nearly strangled. He is bent on taking his own life, and requires to be constantly watched. Dr. Schenck is recovering rapidly.

CANADA.

(*From our Special Correspondent.*)

ONTARIO MEDICAL COUNCIL.—The annual meeting of the Council of the College of Physicians and Surgeons of Ontario, was held in Toronto on the 13th, 14th, 15th, and 16th of June, for the transaction of general business.

Dr. Bray, of Chatham, was elected President for the ensuing year, and the following gentlemen as the Examining Board:

Anatomy (descriptive), Dr. Fulton, Toronto; Theory and Practice of Medicine and General Pathology, Dr. A. S. Oliver, Kingston; Midwifery (operative and other than operative), Dr. Burdett, Belleville; Physiology and Histology, Dr. Tyer, Chatham; Surgery (operative and other than operative) and Surgical Anatomy, Dr. Caniff, Toronto; Chemistry (theoretical and practical), with Toxicology, Dr. Barrett, Toronto; Materia Medica, Therapeutics, and Botany, Dr. W. W. Dickson, Pembroke; Medical Jurisprudence and Sanitary Science, Dr. Nicol, Brampton; and Homœopathic Examiner, Dr. G. E. Field.

EDINBURGH.

(*From our Special Correspondent.*)

DEATH OF PROFESSOR SPENCE.—By the death of Prof. Spence Edinburgh has lost her most successful surgeon. He was born in 1812, and was appointed to the Professorship of Surgery in 1864. Although not possessing the world-wide fame of some of his predecessors, he was, nevertheless, a surgeon who, if judged by the success of his operations, and not by the originality of his talents, occupied no inferior place to even Syme, Liston, or Bell. Lister, during his tenure of the Chair of Clinical Surgery in this University, convinced all his colleagues in the Infirmary and the Hospital of the truth of his antiseptic surgery, except Spence, who, to the last, could never be brought to believe in the use of antiseptics. He held, that all that was required in the treatment of wounds, and in the conducting of surgical operations, was thorough cleanliness, such as could be attained by a free use of simple water, coupled with careful attention to the general condition of the patient, and to the perfect ventilation of the ward. And it is rather remarkable, that holding and practising these views he was able to produce statistics of operations, both major and minor, which were as good, if not better, than those of Lister. And, indeed, Lister acknowledged this when, in seeking to prove the benefit of his method as compared with the old method, he declined to contrast his results with those of Spence, which he held to be perfectly exceptional. Spence has made many contributions to surgical literature, of which his *Lectures on Surgery* will best preserve his reputation and memory. In these he has embodied a very extensive and varied experience, and has described the necessary operations in a very clear and practical manner. He was an excellent anatomist, and his dissections of the arteries of some portions of the body, preserved in the museum of the University, bear surprising evidence of his skill.

The candidates announced for the vacancy created by Prof. Spence's decease are Dr. John Duncan, Dr. Joseph Bell, and Mr. Chiene, all of them surgeons in Edinburgh, and holding appointments in the Royal Infirmary.

VIENNA.

(*From our Special Correspondent.*)

COMBUSTIO: BILLROTH'S PATHOLOGY.—Early in the week Prof. Billroth exhibited a case of severe burn, and discussed the pathology of the injury in a different manner from that obtaining among French surgeons.

The patient, twenty years old, had burned himself on the right arm, by contact with a mass of red-hot iron. The entire flexor surface of the forearm was of a red color, very painful, and covered with blisters, of which several ran together to form larger bullæ.

Prof. Billroth is accustomed to differentiate between three degrees of burning, in opposition to Dupuytren, who distinguishes six.

In the *first degree* (hyperæmia) the skin is of a bright red color, painful, and, in consequence of the exudation of serum into the skin tissue, somewhat swollen. Desquamation of the cuticle often occurs, and the capillary blood-vessels are always distended.

The *second degree* is characterized by the formation of blisters, some of which immediately follow the burning, others some hours later. These vesicles are caused by a rapid flow of fluid out of the distended capillaries, which lifts up the horny layer of the cutis. The blisters, which originally contained pure serum, or serum mixed with blood, in further course, can become purulent. A crust is constructed, under which new epidermis is formed.

Both degrees can be artificially produced by the application of vesicants.

By the *third degree* is designated that intensity of a burn in which the deeper situated soft parts are reached, and gangrene follows. This degree is always attended with the free production of pus, and the wound heals by the formation of granulations.

This division is made with relation only to the intensity of the burn. In regard to the extent of surface involved, it is worthy of note, although very little explained by physiological research, that it only requires two-thirds of the body surface to be burnt in order to secure certain death, with symptoms of dyspnœa and collapse.

Treatment must be directed entirely to the alleviation of pain, as the formation of skin cannot, in any way, be accelerated.

In the present case, after puncturing the larger vesicles, and empyting their contents, the forearm was enveloped in cotton.

Other methods consist in application of cold compresses, or in smearing the burnt surface with oil, in order to lessen pain. With collodion, which has been recently highly recommended, Prof. Billroth has obtained no favorable results. He succeeds very well, however, in burns of the third degree by compression of the burnt part with strips of sticking plaster, or by application of compresses, saturated with a one per cent. solution of argentum nitric.

THE NEW YORK COUNTY MEDICAL SOCIETIES AND THE NEW YORK CODE.—The Chenango, Warren, Schoharie, Oswego, Montgomery, Westchester, Genesee, and Wyoming County Medical Societies are the latest to formally condemn the new Code.

THE PUBLIC HEALTH.—For the *week ending June 10*, there were 25 deaths from *small-pox* in New Orleans, the greatest number reported in any one week since the beginning of the present epidemic. There were 4 deaths from the same cause in Hudson County, N. J., and 2 each in Pittsburg and San Francisco. From *cerebro-spinal meningitis*, there were 7 deaths in Buffalo; from *scarlet fever*, 7 deaths in Buffalo, and 6 each in Hudson County. N. J., and St. Louis; and from *typhoid fever*, 4 deaths in Charleston.

For the *week ending June 17*, the following causes of death may be noted:

Small-pox.—There was a decrease in the mortality from this disease in Cincinnati and New Orleans. The deaths for the week were as follows: New York City, 6; Philadelphia, 4; Hudson Co., N. J., Pittsburg, and Detroit, each 1; Cincinnati, 37; Indianapolis, 2; Louisville, 3; and New Orleans, 15. There were two new cases reported in Buffalo; 5 in Pittsburg; and one each in Louisville and Nashville.

Cerebro-spinal Meningitis.—There were 9 deaths from this cause in New York City; 1 in Philadelphia; 3 in Hudson Co., N. J.; 5 in Buffalo; and 2 in Providence.

Diphtheria.—New York City reports 24 deaths from diphtheria; Philadelphia, 17; Brooklyn and Hudson Co., N. J., each 4; Boston, 7; Pittsburg, 6; Milwaukee, 5; and Cincinnati and St. Louis each 2 deaths.

Scarlet Fever.—There was a very marked falling off in the deaths from scarlet fever in New York City. The deaths for the week were as follows: New York City, 31; Philadelphia, 11: Brooklyn, 17; Hudson Co., N. J., 8; Boston, 3, and 13 new cases; Cincinnati, 9; St. Louis, 8; Detroit, 3; and Nashville, 2.

Measles.—From this disease there were 21 deaths in New York City; 1 in Philadelphia; 4 each in Brooklyn and Pittsburg; 3 each in Hudson Co. and St. Louis; 6 in Buffalo; and 2 each in Cincinnati and Milwaukee.

Whooping-cough.—New York City reports 13 deaths from this cause; Brooklyn, 6; Charleston, 3; and Pittsburg, 2. Elsewhere, no prevalence of the disease.

Consumption and Pneumonia.—There were 91 deaths from consumption in New York City; 38 in Philadelphia; 28 in Brooklyn; 29 in Boston; 18 in the District of Columbia; 11 in Cincinnati; 15 in New Orleans; 9 in St. Louis; 8 in Hudson Co.; 7 in Providence; and 6 in Buffalo. From pneumonia, there were 55 deaths in New York City; 35 in Philadelphia; 22 in Brooklyn; 10 in Hudson Co., N. J.; 14 in Boston; 8 each in Pittsburg and Cincinnati; 5 each in Providence and St. Louis; 4 in New Orleans; and 3 each in the District of Columbia and Pittsburg.

For the *week ending June 24th*, there were 4 deaths from *small-pox* in New York City and 4 in Philadelphia; 1 case reported in Boston; 29 deaths in Cincinnati; 5 new cases in Louisville; 1 death in Nashville. *Diphtheria* caused 37 deaths in New York City; 13 in Philadelphia; 14 in Boston and 39 new cases; and 2 in Cincinnati. From *scarlet fever* there were 39 deaths in New York City; 10 new cases and 1 death in Boston; and 8 deaths in Cincinnati. *Typhoid fever* caused 20 deaths in Philadelphia during the week. *Measles* and *whooping-cough* still prevail in New York City, but not to any great extent. The advent of warm weather has already had the effect of decreasing the number of deaths from acute lung affections; at the same time it has increased the mortality from diarrhœal diseases, but not to any great degree. Thus far this season there has not been any prolonged period of excessively hot weather in any portion of the country, and, consequently, infant mortality is not reported as excessive in any place, the death-rate from this cause being lower than it usually is at this season of the year. Excessive infant mortality will probably not occur before the second week in July, as the heated term has just commenced. It is sure to succeed the first week or two of very hot weather, and continue with fluctuations through the summer.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending June 17, 1882, indicate that neuralgia, diarrhœa, and measles, have increased,

and that remittent fever and influenza have decreased, in area of prevalence.

Small-pox was reported present during the week ending June 17, and since, at 7 places, as follows: at Port Huron (one immigrant, convalescent), June 11; at Kalamazoo (two cases, convalescing), Detroit, Flint, and at Wayne County Pest House; at Grand Rapids (three during week ending June 17, three new cases June 21); at Battle Creek (one new case), June 22, 1882.

PROTECTION FROM INFECTION.—A meeting of representatives of the National, State, and Local Boards of Health was recently held in Port Huron, Michigan, at which the following resolutions were adopted:

Resolved, That we deem it important that a system of immigration inspection shall be immediately inaugurated, which shall apply to all trunk lines of railroad carrying immigrants, to prevent the introduction of smallpox into the United States and from one State into another.

Resolved, That the National Board of Health be requested to advise and co-operate with and through the State boards of health, and the several local authorities of health whenever it may be considered advisable to carry out a proper system of inspection and control of all persons travelling through the several States, with reference to the limitation of small-pox.

Resolved, That the National Board of Health be requested to erect or otherwise provide and furnish on the borders of States, as may be required, such temporary buildings as may be necessary, and provide for the care and maintenance of persons on emigrant trains suffering from small-pox, when committed to these hospitals.

Resolved, That, inasmuch as a considerable number of the immigrants coming into the United States or passing through them, necessarily travel through the Dominion of Canada, we do cordially invite the co-operation of the Canadian authorities in inaugurating a system of inspection of such immigrants in order to prevent, as far as possible, the spread of small-pox.

Resolved, That this conference commend the action of such transportation companies as have established a system of inspection and the issuing of protection cards and earnestly request all other steamship companies engaged in transportation to co-operate with local and other inspectors of emigrants in transit as a means of suppressing the spread of small-pox.

Resolved, That this conference is gratified to learn that many railway lines have already pledged co-operation in efforts of inspection, and we earnestly request all other railway trunk lines engaged in the transportation of immigrants to co-operate in inspection and the enforcement of regulations looking to the limitation of small-pox.

Resolved, That it is desirable that this system of immigrant inspection shall begin generally throughout the country by June 1, 1882.

THE NATIONAL BOARD OF HEALTH.—At the annual meeting of the National Board, held June 23d, the following officers were elected for the ensuing year:

President.—Dr. James L. Cabell, of Virginia.

Vice-President.—Dr. Stephen Smith, of New York.

Secretary.—Dr. Thomas J. Turner, Medical Director, U. S. N.

Executive Committee.—The above named officers, with Samuel F. Phillips, Esq., Solicitor-General; Dr. John S. Billings, Surgeon, U. S. A.; and Dr. P. H. Bailhache, U. S. M. H. S.

CENTRAL COMMITTEE OF THE ALUMNI OF THE UNIVERSITY OF PENNSYLVANIA.—The following gentlemen were elected on commencement day to represent the Medical Department in the Central Committee: John F. Meigs, M.D., John H. Packard, M.D., Caspar Wister, M.D., Samuel Ashhurst, M.D., I. Minis Hays, M.D., Albert H. Smith, M.D., William H. Van Buren, M.D., Traill Green, M.D., Claudius H. Masten, M.D., William H. Klapp, M.D. The committee met for organization last Wednesday.

NEW PARASITES.—We have before us a clipping from the editorial columns of a daily paper in which the recent investigations of Koch are humorously referred to. The editor then goes on to state that, "While Germany has thus given to the world a discovery of presumably vast importance, Wisconsin has not been idle. Dr. Buhl, a distinguished physician of that State, has just made a discovery as to the origin and proper treatment of broken legs which is, on the whole, rather more valuable than the discovery of Prof. Koch. It has long been noticed that broken legs prevail in thickly settled parts of the country much more generally than in thinly settled regions. It is also undeniable that wherever railroads penetrate broken legs soon become common. These facts are sufficient to enable us to assume that there is something in thickly settled regions that is favorable to the development of broken legs, and that this something—whatever it may be—is carried far and wide by railway trains. Dr. Buhl, who is an ardent believer in the germ theory of nearly all diseases, claims that he has discovered a vegetable parasite which infests the human trousers and causes broken legs. Within the past year he has examined with the microscope thirty-six cases of broken leg, and in every case has found this parasite in the accompanying trousers. In the course of the last six months he has placed garments cut after the manner of trousers and inoculated with the parasite in question upon the fore legs of eighteen cats, thirteen of whom were afterward found in a steel trap, set for the purpose in the doctor's back yard, each with a fore-leg broken. He also tried a similar experiment upon seven cows belonging to his wife, six of whom were afterward run over by railway trains—the White River and Sheboygan Railroad running directly through the cow pasture—and sustained compound fractures of more or less of their legs.

"Having thus fully established the fact that broken leg is produced by a parasite infesting the trousers, Dr. Buhl maintains, with much plausibility, that by inoculating human trousers with this parasite after it has been artificially bred in trousers supplied for the purpose to cattle, men will be fully protected against broken legs. So far as the non-scientific mind can perceive, the Doctor's plan is an admirable one. If we can by so simple a measure as the inoculation of trousers put an end to the wide-spread havoc yearly wrought by broken legs, humanity will owe to Dr. Buhl a debt which it can never repay, and the name of Buhl will be inscribed on all sorts of monuments by the side of the equally revered names of Koch and Jenner."

A GOVERNMENT ANIMAL VACCINE ESTABLISHMENT.—The British Local Government Board has just opened an establishment in London for animal vaccination with stables for the housing of the calves. Every precaution is taken that the calves shall continue in good health while they are resident in the institution. That they should be absolutely free from every blemish is most important, for apart from the question of the impropriety of using any but healthy animals, the fact remains that the least disturbance to the health of the calf materially interferes with the development of the vesicles. The calves are carefully selected, and those between four and six months old are found best to answer the purpose; if very young, they do not bear

well the change of food attendant upon their removal from the mother, and if too old, are difficult to manage on account of their size and strength. They are received at a fixed hour every Monday afternoon, and are carefully inspected by a veterinary inspector of Her Majesty's Privy Council before being admitted into the stables. Provided they pass this examination, they are then weighed and placed in their stall; here they remain under observation while awaiting inoculation. When ready to be vaccinated the calf is taken into the operating-room and placed upon the table, the top of which is arranged so that it turns upon hinges and is at first at right angles to the floor. When the calf enters the room it is again weighed, and then placed against the table in this position, and a strap is passed round its body and the top of the table; the latter is then placed in its ordinary position and retained there by bolts, the calf being by this movement raised upon it. The legs of the animal are then seized, one hind leg is strapped to an upright iron bar fixed to the table, the other in a horizontal direction, the forelegs and head are then secured, and the abdomen is thus thoroughly exposed. The latter is carefully shaved, and the lymph is inserted by means of a number of superficial incisions with a tenotomy knife charged with lymph. The lymph is either taken from tubes or directly from another calf; if from a calf, the vesicles are pinched up by curved sliding forceps, the crust wiped off, and one or two longitudinal incisions made into the vesicle to allow the lymph to escape. Lymph is in this way taken for the immediate vaccination of patients, or on points or in tubes, for future use, or for the vaccination of the next calf. The calf which has just been vaccinated is, on returning to the stable, provided with a cradle to prevent it licking the vesicles. This it wears until its own turn comes to supply the lymph, after which, of course, the cradle is no longer necessary.

The following arrangements have been made for the vaccination of patients visiting the institution. At half-past ten every Saturday a calf is vaccinated to supply lymph five days afterwards—that is, the following Thursday, when patients come at the same hour to be vaccinated; on Thursday lymph is also sent to the National Vaccine Establishment at Whitehall, and some is used for the direct vaccination of another calf, which, in its turn, is ready on the following Tuesday, at the same hour, to yield lymph for the purposes of further vaccination. The lymph at present in use is derived from a case of spontaneous cow-pox discovered near Bordeaux at the end of last year.

GEORGIA MEDICAL COLLEGE.—Drs. Lewis D. Ford and L. A. Dugas, two of the founders of the college, and for over fifty years members of its Faculty, have resigned. The Board of Trustees passed the following resolutions proposed by the Faculty.

Resolved, That, without debate and in response to the expressed wishes of Prof. Lewis D. Ford and of Prof. Louis A. Dugas, we accede to their relinquishment of the active duties of their Chairs, of the Practice of Medicine and of Surgery respectively, so long and so acceptably performed by them.

Resolved, That we unanimously recommend them for, and urge their acceptance of, Professorships *Emeriti* in their respective departments.

Resolved, That earnestly desiring to enjoy still the benefit of their wise and experienced counsel and of their influence in behalf of our venerable institution, we urgently request that they retain their membership in the Board of Trustees.

Resolved, That in their well-earned retirement and well-deserved rest, our revered colleagues will continue to hold, not only our warm affection and good wishes for their happiness and long continued welfare, but also that, for their part in the founding of this valuable institution of learning, and for their labors and watchful care of that institution in the promotion of the best interests of the medical profession, and of humanity which, with one other, they have continued for a period of half a century, they well deserve the respect and the gratitude of both the present and of the future generations.

SYRACUSE UNIVERSITY.—The commencement exercises of the College of Medicine of Syracuse University, New York, were held on Thursday evening, June 8. Eleven gentlemen were graduated, after having followed the graded course of that institution for three years of nearly nine months each. The address to the graduates was made by Dr. Wm. S. Ely, of Rochester, N. Y.

UNIVERSITY OF PENNSYLVANIA, MEDICAL DEPARTMENT.—At the Annual Commencement in June, the degree of M.D. was conferred on 5 candidates, making, with the 117 graduates in March, 122 for the collegiate year.

THE FRENCH ACADEMY.—For the vacancy in the Section of Anatomy and Physiology of the French Academy of Medicine, caused by the death of M. Moreau, the Section presented the list of candidates in the following order: MM. Mathias Duval, Ch. Richet, Laborde, and Farabeuf. Of the seventy-six Academicians present, M. Duval received the votes of fifty and was consequently elected.

DIED.—CARL HUETER, Professor of Surgery in Griefswald. Prof. Hueter was born in Marburg on November 27, 1838, in 1863 was one of Virchow's assistants, and for five years was an assistant to v. Langenbeck, when he was called as Professor and Clinical Teacher to Rostock, only in the next year to be summoned to Greifswald as successor to Bardeleben, a position which he held up to the time of his death. Hueter is best known as the author of a valuable treatise on "Diseases of the Joints," and the writer of the papers on Pyæmia and Septicæmia in Pitha-Billroth's "Handbook of General Surgery."

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 20 TO JUNE 26, 1882.

HOFF, J. V. R., *Captain and Assistant Surgeon.*—Having reported at these headquarters, is assigned to duty as Post Surgeon at Alcatraz Island, California.—*S. O. 107, Military Division of the Pacific and Department of California, June 17, 1882.*

DE LOFFRE, A. A., *Captain and Assistant Surgeon.*—Relieved from further duty at Fort Wallace, Kansas, and assigned to duty at Fort Sill, Indian Territory.—*S. O. 124, Department of the Missouri, June 21, 1882.*

BANISTER, J. M., *First Lieutenant and Assistant Surgeon.*—When relieved by Assistant Surgeon De Loffre, to proceed to camp of Ninth Cavalry, near Castonment, on the Uncompahgne River, Colorado, and report to the commanding officer for duty.—*S. O. 124, Department of the Missouri, c. s.*

NOTSON, Wm. M., *Major and Surgeon.*—Died at Columbus Barracks, Ohio, June 23, 1882.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

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